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## Diamond – A Hands-on Review

An in-depth look at Reeve Software's and USA Media's Diamond Graphic Operating System

## Hewlett Packard DeskJet

A look at the DeskJet printer and printer drivers made by Migraph and NeoCept

## The Tweety Board

A Hardware Kit from Practical Solutions giving stereo to your ST

## The Unintentional, Unwelcome Xbios-Virus

Some tips on how to avoid troubles when creating programs

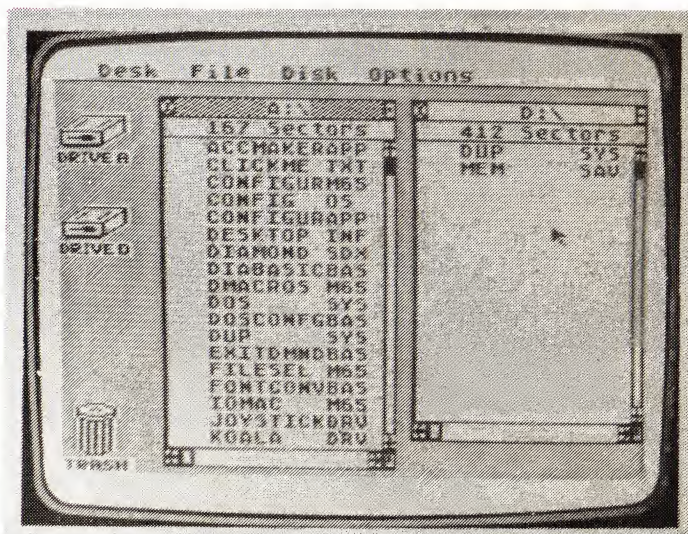
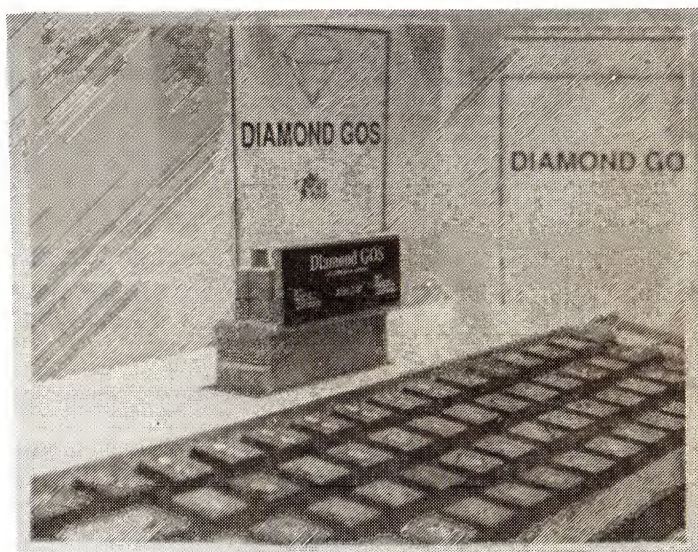
## HiSoft BASIC – The New Standard?

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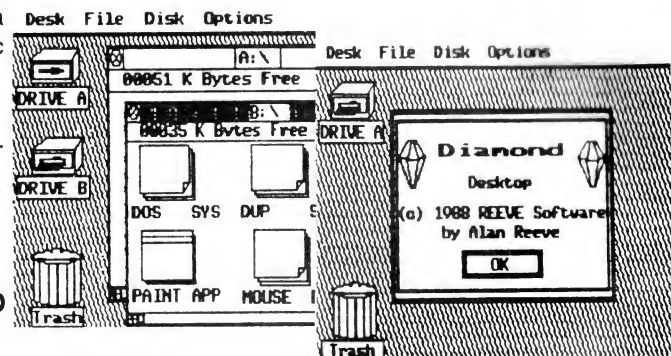
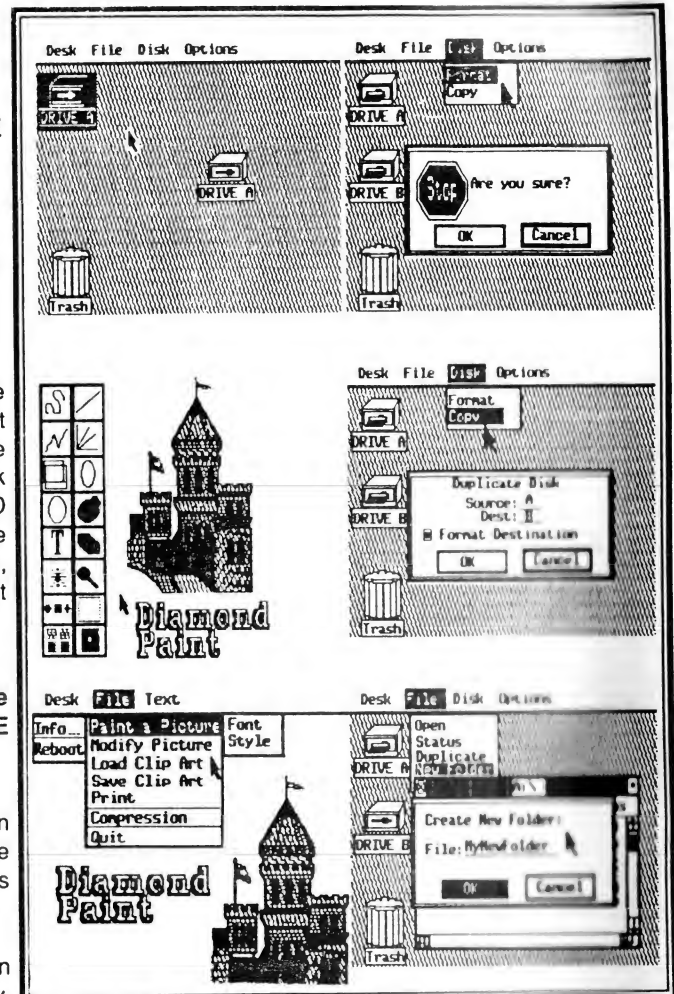
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## On the Cover

The Diamond Cartridge from ReeveSoft and USA Media.  
Photos by Bob Retelle

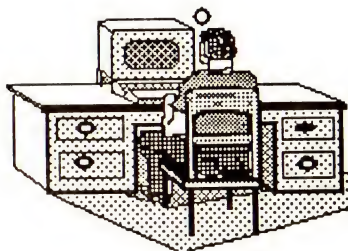
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## Editorial Ramblings

It's March, and from the way Dealers in the Michigan area are talking, Atari will have nothing to fear from the Ides. All the dealers we've spoken with are very upbeat about selling Atari Computers; they're well-stocked, with ample supplies waiting when they sell what they already have. Ads have been seen across the nation, and the hope is Atari will fulfill its promises for the Second Quarter '89!

This Spring and Summer should be good for the Atari Users in Michigan with two Atari shows in the works. MACE and Atari Corp. are sponsoring the Michigan Atari Computer Expo on May 6&7, and ST World Magazine is planning the World Of Atari series of shows, one to be held in Dearborn on June 24 & 25.

If your club hasn't been represented lately by an article in AIM, perhaps you'd like to write one! Remember, it's your contributions which help keep this a high-quality, User-oriented publication.

Bill & Pattie Rayl

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# From the Reader's Viewpoint



## Clubs and AIM

Dear Editor,

I just read the January issue of AIM. I've been intrigued by the conflict between the Atari clubs and AIM, the magazine they helped create.

I feel the conflict is over the "Personality" of the magazine. Over the last year or so, I've noticed AIM's personality has changed as the magazine has physically grown and changed. I'd rather see AIM have the personality of the old MAM, because I feel the old MAM more accurately reflected the personality of the club I belong to, WAUG.

I believe it's this change in personality which is scaring some people. They (and I) were hoping MAM's personality would freeze in just the form they enjoyed. I later realized this was a selfish viewpoint. Everyone has their own theory of how to create a perfect world (and not a one is correct).

AIM is independent. It will develop its own personality just like a growing child. I'm sure any personality conflicts which arise between AIM and the clubs or readers will correct themselves. The clubs and readers will continue to complain to AIM.

AIM will likely review all reasonable complaints, then make changes. Remember, without readers to subscribe or clubs to participate, AIM can not exist. They have to keep us happy.

For those not satisfied with AIM, I propose a disclaimer. It could appear on page 2 in AIM with the other disclaimers or at the beginning of any entry submitted by a club not satisfied with AIM:

"The Personality of AIM does not necessarily represent or reflect the Personality of (any/this) club. (The club/s This club) participate(s) in AIM solely to bring a healthy exchange of information within the Atari community."

A few compliments:

A "Good Job" goes to Jerry Cross for his articles on call blocking. I was entirely unaware of the problem.

Another "Good Job" goes to Tim Sharpe for his funny questions & answers. I'm sure he hasn't received any response for his creative efforts.

Jay Skotcher,  
WAUG

---

## A Fix for a Disk Change "Bug"

Dear Editor,

Some time ago, Atari shipped quite a few disk drives with a "bug" which made the system not recognize a disk change.

I understand that such drives can be exchanged. If, however, you don't want to do that, or if you've upgraded a single-sided drive to a double-sided one and found that you were "lucky" enough to get a double-sided mechanism with this problem, here's a fix:

*Article 11478 of 11544, Tue 19:09.  
Subject: Re: Attaching a CHINON drive to the ST (the saga continues...)*

*To get the drive to acknowledge a media change, run a jumper from pin 2 to pin 28 on the drive's 34 pin connector. As you look at the mech from the REAR, pin 2 is the top left pin, 28 is the 4th pin from the right.*

*Atari's drives combine media change (pin 2) and write protect (pin 28) into one pin. This is why you can't get a media change without this jumper.*

*However, be sure and try to write to the disk after you do this. If the computer gives a constant "Disk write protected" warning, then disconnect the jumper. I have this problem. My Teac mechanism doesn't have a strong enough write protect signal to make it with the two wires connected. However, I doubt you will have this problem.*

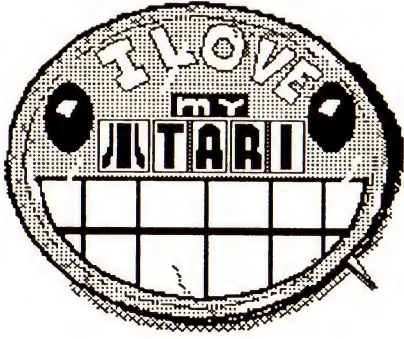
*Chris Freemesser Rochester Institute of Technology Bis spaeter!*

I've performed this modification on the Tandy drive I bought a few months ago, and it works fine.

That Tandy drive has a Teac mechanism, so the problem mentioned in the posting doesn't necessarily apply to all Teac drives.

Rod Smith,  
WAUG





# Atari News and Comment

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by Bill and Pattie Rayl

---

It seems that March, the herald of spring, may be heralding the beginning of a new season for Atari in the US. The promises made by President Sam Tramiel for the new year are definitely coming true, and '89 may be "The Year of Atari."

Reports in the past few months have indicated Atari was purchasing twice the amount of parts and stepping up production. We are about to see the results, as Atari begins its US push. Atari has reportedly set aside a large chunk of money for a National advertising campaign. Michael Pender of Moody Blues fame narrates three of these ads, one for DeskTop Publishing, one for MIDI and one centering on the 1040ST compared to other machines. The national ads being produced by Atari have "trailers" for local dealers to add their names and information.

Unlike the past rumors of national ad campaigns, these have reportedly been seen in a number of regions in the US.

Atari has also lowered the price of the 104ST to \$799 for monochrome and \$999 for color systems. With the highly competitive pricing and national advertising exposure of the 1040ST, Atari is strategically positioning itself for a major US push that has ALREADY begun.

Our favorite computer producer has also reportedly opened an R&D facility in Chicago, IL and has taken steps to get a dormant chip manufacturing plant in Santa Clara, CA into high gear.

## Atari Trade-Ins

In another push to sell more STs, Atari is instituting a deal allowing 8bit Atari owners to trade in their working or

non-working machines for a \$150 discount coupon good toward the purchase of an ST! Registered Atari User Groups and dealers should have all the details by the time you read this.

For those still not ready to part with their 8bits, it seems Atari has run out of stock on older modem disk drives and modems. Owners who have been sending in non-working 810s and 1050s, along with \$75, have been receiving XF551 double-sided drives as replacements. Old 1030 or XM301 modems sent in with \$40 are being replaced by Atari's 1200 baud SX212 modem. Maybe it's time you retired that old hardware? Contact Atari Customer Service at (408) 745-2367 or (408) 745-5759 for details.

## DOS XE Sent to User Groups

Registered Atari User Groups have all recently received a package from Atari Corp. containing DOS XE and a well-organized 135-page manual. According to the letter from Cindy Claveran, Atari User Group Coordinator, the DOS may be freely copied and distributed, but users wish to receive a manual should send a check or money order for \$13.50 to Atari Customer Relations, 1196 Borregas Ave, Sunnyvale, CA 94086. The new DOS has support for the XF551 DS drives, subdirectories, date stamping of files, batch files and many other features. The DOS has had mixed reviews from the first wave of users, but DOS XE has many nice improvements that may win over users of the older Atari Disk Operating Systems.

A letter has reportedly been sent to Registered Atari User Groups indicating that each group can purchase an ST for the club at cost. As of this writing, the letters had not been received by the clubs.

## New MIDI Keyboard from Atari

In keeping with its high profile in the MIDI Music industry, Atari has announced that a new MIDI keyboard will soon be available and will reportedly be shown at the World Of Atari show in Anaheim, CA on April 22-23. The keyboard was reportedly designed by Mick Fleetwood of Fleetwood Mac, a prominent advocate of the Atari ST for MIDI applications.

John Townsend of Atari Corp. recently announced that TOS 1.4 has finally gone into production. For an excellent look at the new TOS and what it can do for you, check out the new issue of Atari Explorer.

Atari Explorer is beginning a new magazine for XEGS owners and Atari gamers everywhere. The magazine is called "The Atarian" and \$15 gets you a six-issue subscription and Atari Game Champion T-shirt and patch. The Atarian, 7 Hilltop Rd, Mendham, NJ 07945.

## Diamond GOS SuperCartridge Shipping Now

In the "race" to release a top-notch cartridge-based GEM-like environment for the 8bit Atari, ReeveSoft and USA Media have pulled into the lead with their "Diamond GOS SuperCartridge." According to Shelley Merrill, 175 cartridges have been shipped to eager Atarians. It seems there were some changes made to the system after the first 50 cartridges had been released, such as allowing parameters to be passed when executing COM files (such as ICD's time setting utilities). See the Diamond review elsewhere in this issue for more information.

## GOE and Turbo-816 Update

Release of the GOE cartridge from



Total Control Systems (TCS) has been a bit behind schedule, according to David Sullivan. As of this writing, Dave has been burning EPROMS for the last couple weeks and getting the cartridges ready for shipment. An online notice from Dave states:

"I realize many of you have been waiting for GOE since late October, and I know it is hard to wait for an exciting new piece of Atari 8bit software; but I do not want GOE to be a product that is simply a toy. If GOE and the Atari 8bit are going to have a successful future together, then GOE must be a program that you will use. GOE will not be shipped until it is complete and fulfills your needs."

In a phone conversation in late February, Dave said the cartridge is now ready! The special advance order price for GOE is no longer in effect, but User Group discounts are still available. All people who pre-ordered GOE and have been patiently waiting will receive a "free bonus disk containing some exciting new software." \$79.95, Total Control Systems, 4156 Tolowa St, San Diego, CA 92117, (619) 270-0111

TCS has also been working with DataQue to insure that GOE is fully compatible with the Turbo-816 kit.

The 8/16 kit hardware/software upgrade for Atari 8bit owners has been in the hands of 22 betatesters for a few months now, and DataQue has announced the following price breakdown:

Turbo-816x, pre-assembled \$119.95 + 4.05 s/h

Turbo-816k, user assembly required: \$99.95 + 4.05 s/h

1200 XL version of Turbo-816: Add \$10 to above pricing

The following discounts are available to user group orders accompanied by a copy of the club's newsletter and to dealers: 2-5 kits, 10% off; 6-10 kits, 15% off; 11-20 kits, 20% off.

A programmer's kit is also available for \$39.95 (\$19.95 to registered Turbo-816 owners). The kit includes macros, system equals and other technical documentation to get you up to speed. For the latest information on Turbo-816, you can call the DataQue BBS at (419) 529-5197.

### Yet Another 8bit Cartridge -- Express!

In the months since he left ICD, Keith Ledbetter has been pretty busy. His Express! terminal program has been totally rewritten and will be available on an ICD "piggyback" cartridge by June 1 of this year. The cartridge features, among others, drop-down menus similar to the IBM and ST; XEP-80 support; a full-screen editor with cut and paste, line tagging and search and replace; ability to run external programs; exit to DOS without losing carrier and more. The cartridge also supports the extra memory in your 130XE or upgraded 8bit, allowing up to 90K capture buffers on the XE. File transfer protocols include Xmodem, Xmodem CRC, Xmodem 1K (Ymodem), Ymodem Batch, ASCII and external windowed protocols. The cartridge supports all modems with an R: handler (1030, XM301, MPP, or 850-connected Hayes compatible). Retail price is \$69.95 + \$4 s/h, but if your order is received before June 1, you can deduct \$10 for the cost. Orion Microsystems, 2211 Planters Row Dr, Midlothian, VA 23113.

### Get Practical!

Purchasers of Practical Solutions' new Video Key can get a coupon good for a FREE Mouse Master, Monitor Master, or Drive Master. The offer is good on Video Keys purchased between December 1, 1988 and March 15, 1989. Coupons are available from your local dealer or you can send in your name and address, along with the "golden key" emblem from the front of the Video Key box and a receipt showing date of purchase. Indicate which of the master items you want and send it in postmarked by March 30. It's that simple.

Also available from the wonderfully inventive people at Practical Solutions is a new and inexpensive MIDI thru/out cable. This cable gives you separate connections for MIDI In, Out and Thru for compatibility with all MIDI equipment. For only \$14.95, this cable is recommended for MIDI users everywhere. For details, contact Practical Solutions at their new location, 1135 N. Jones Blvd, Tucson, AZ 85716 or (602) 322-6100.

### PC Ditto II

Avant-Garde is nearing completion of pc-ditto II, the hardware/software IBM emulator that runs at 4.77 MHz (full XT speed). Reports are that the emulator is cartridge-based and will be unveiled at the Anaheim World of Atari show. Registered owners of pc-ditto are eligible to receive a coupon good for 50% off the as-yet-unannounced price of pc-ditto II. New purchasers of version 2.0 of pc-ditto will automatically receive version 3.01 of the software free of charge. Avant-Garde, 381 Pablo Point, Jacksonville, FL 32225 or (904) 221-2904.

### Apple IIe Emulator for the ST

The December/January issue of T.H.E. Journal, an education publication, contains an announcement concerning an Apple IIe emulator for the Macintosh, IBM PC/2 and Atari ST. The ST version, named "II in an ST," contains utilities for disk conversions and program development. Discount purchases and licensing deals are available to educational institutions. No prices were given. The announcement also mentioned the ability to network up to 50 work stations. Computer Applications Inc., Raleigh, NC.

### MichTron Bargains on HiSoft and Fleet Street 2.0

MichTron is offering an outstanding half price deal on HiSoft BASIC and HiSoft BASIC Professional. Simply send in a photocopy of the copyright page from the manual of any commercial BASIC and you can purchase HiSoft for only \$39.97 and Professional for only \$79.95 (plus \$5 s/h for either). This offer is good until March 31, 1989, so don't delay. See the review of HiSoft BASIC elsewhere in this issue.

MichTron is offering a similar deal for Fleet Street Publisher 2.0 from England. This package has been out in Europe for over six months and is bug-free. Normally retailing for \$149.95, owners of any commercial DTP package can send in a photocopy of the manual's copyright page and get Fleet Street 2.0 for only \$50 (plus \$5 s/h). This offer expires on March 31, 1989. MichTron, 576 S. Telegraph, Pontiac, MI 48053 or (313) 334-5700.



### Turbo-ST User Group Purchases

SofTrek's version 1.4 of Turbo-ST, the "software Blitter" that speeds up text and many GEM functions has been getting rave reviews from users everywhere. Now, User Groups can take advantage of some great deals on this must-have utility. Any User Group that can get three or more members together can buy Turbo-ST for only \$35 each. On top of that, if 10 members of a club become registered owners, SofTrek will supply your group with a FREE copy of Turbo-ST. Your club can, in turn, update the copies owned by those registered users. SofTrek, PO Box 5257, Winter Park, FL 32793 or (407) 657-4611

### Three New Game Releases for the ST

France-based Titus Software has been moving strongly in the ST entertainment area with hits like Crazy Cars, Fire and Forget and Offshore Warrior. Their newest release, Galactic Conqueror, is a space game combining the fast action of a coin-op machine with a good dose of strategy. According to Mike Vulpillat of Titus, the game "introduces for the first time on computer a high speed, full screen rotation when you realize a roll" with your fighter. "You can find as many as 40 sprites together on the screen, all moving in different directions." The game also features the largest sprite ever seen on a computer to date — the Imperial Enemy Ship. There are 416 planets in the game, just waiting for you to liberate them from tyranny. What are you waiting for? \$44.95, Color, Titus Software, 20432 Corisco St, Chatsworth, CA 91311 or (818) 709-3693.

Magnetic Images has announced release of The Lost Dutchman Mine, a graphic adventure for your ST. Set in the Old West, the game features digitized sound, MIDI compatible music, real-time game play and over 100 mines and caverns to explore. \$49.95, Color, Magnetic Images, PO Box 17422, Phoenix, AZ 85011 or (602) 265-7849.

In the midst of a debate over piracy of the F-16 simulator, Falcon, Spectrum Holobyte releases Orbiter for the ST. Orbiter is a space shuttle simulation that has been a success in the Macintosh and IBM markets. The program features a very detailed simulation and comes with excellent (and necessary!) documentation on all phases of the game. \$39.95, Color, Monochrome version available for an additional charge, Spectrum Holobyte, (415) 522-3584.

### Elwood Incident Draws to a Close

In the December issue of MAM, we reported on an incident in which a CompuServe (CIS) user under the name Elwood accused ST Report's Ralph Mariano of piracy. The final page on the Elwood story appeared on page D3 in the January 27, 1989 issue of the Flint Journal. Under the headline "Suspected phone hacker arrested in Genesee Twp," the article states:

"Armed with a search warrant, troopers went to the home of an 18-year-old computer hacker from Genesee Township who allegedly cracked telephone company long-distance codes and was making illegal long-distance phone calls, including some to

foreign countries. Seized in the raid was a variety of computer equipment and hundreds of disks, some of which [Detective Sgt.] Jenkins said may contain pirated programs, including programs on how to bypass telephone company security codes."

### Atari Show Updates

The World of Atari Show at the Disneyland Hotel in Anaheim, CA on April 22-23 promises to be a big event. Featuring everything from the Atari 2600 to the Mega4, seminars and workshops, the show should be an unqualified success. The next stop for the World of Atari is Dearborn, MI on June 24-25. Additional shows are planned for San Jose, CA and possibly Dayton, OH and Seattle, WA. Call (503) 673-2259 for more details.

The MACE-sponsored Atari show that they've been working on since September, 1988, is shaping up nicely, with commitments from ICD, Migraph, Alpha Systems, USA Media, Gribnif, SofTrek, ST Informer and Index Legalis. The Michigan Atari Computer Expo looks like another "must attend" event. User Group Information packages have been sent out to clubs in the Midwest. If your club has not yet received a kit, call (313) 973-8825 to get in on the User Group specials. The show will be held May 6&7 at the Detroit Metro Airport Hilton in Romulus, MI. Tickets are \$5 at the door, \$4 for User Group members. Tickets may be purchased in advance from area User Groups or directly from MACE. Contact Michigan Atari Computer Enthusiasts, PO Box 2785, Southfield, MI 48037 or (313) 973-8825 for more information.

### ST Report Releases Hardcopy Newsletter

ST Report, the popular online ST magazine found on the major services and many BBSes, has announced a hardcopy newsletter available for \$15 for 12 issues. According to Ralph Mariano, the newsletter is accepting no advertising in order to bring unbiased reviews to its readers. For a FREE sample issue, call the Bounty BBS at (904) 786-4716 or send email to ST Report on any of the services, leaving your name, address and phone number.

### Syndicate Publishing Announces Z\*Net

The producers of the online ZMagazine and STZMagazine have announced Z\*Net, a User Group newsletter supplement "designed for inclusion in participating newsletter-magazines already being produced by Atari User Groups." The supplement comes camera-ready and contains national news and information. Individual clubs that chose to use the inserts pay a \$25/yr fee and are responsible for the actual newsletter production and distribution, but Z\*Net pays 20 cents per distributed copy above the first 100 distributed. For clubs that are currently producing a 12-page or larger newsletter with a circulation of over 100, or clubs that can "band together" to produce such a newsletter, they may find Z\*Net well worth looking into. For more information, call Ron Kovacs at (201) 968-8418 or John Nagy at (517) 487-5646.



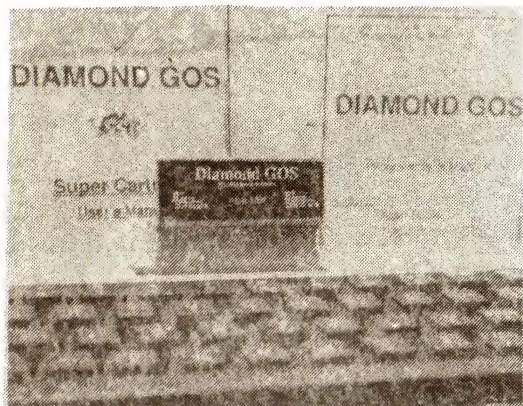
# Diamond -- A Hands-on Review

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by Michael Beard (TACE)

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I originally heard of the Diamond Graphics Operating System through what was once Merrill Ward and Associates, but is now known as USA Media. Merrill Ward was promoting another product at the time, GOE, now being sold by David Sullivan of Total Control Systems, 4156 Tolowa Street, San Diego, CA.



92117 (619) 270-0111, and I had ordered the GOE cartridge. However, with no notice, Merrill Ward changed its name and moved.

When Merrill Ward moved, they also discontinued promoting the GOE cartridge and started promoting the Diamond GOS on disk. I had already paid \$5 for a demo disk of GOE, and then had to pay another \$46.36 for the disk version of Diamond. Included in this price was to be the Diamond Write and Diamond Paint programs, also on disk. However "...soon to be released..." and "...within two weeks..." stretched into over four months

without seeing any sign of either of the two programs.

At the time, there were two versions of Diamond, one a 64K disk-based version and the other a 128K disk-based version for the 130XE. I ordered the 64K version and was promised I would also receive the 128K version to enable me to show it to the local user group of which I am the president.

However, (you will get tired of seeing that word in this article), upon arrival of the package from USA Media, there was only the 64K Diamond on disk, no Write, no Paint nor the 128K version.

The 64K disk-based OS had several bugs, not the least was incompatibility with SpartaDOS. I then placed several calls to Mr. Merrill, to inquire into the whereabouts of the 128K OS.

I was told that due to piracy of the 64K version, the 128K version was being stripped of functions to be made into a demo disk, awaiting the conversion to a cartridge. After repeated calls to Mr. Merrill, I finally received the 128K DEMO version. There was little improvement over the 64K version, not enough to go into here.

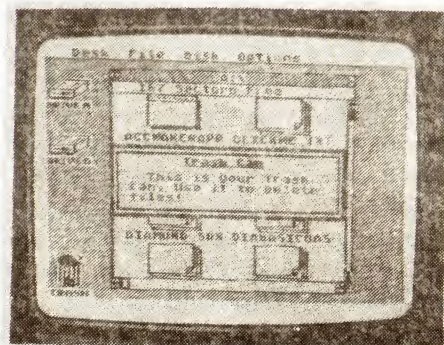
Mr. Merrill had verbally agreed to allow me to purchase the cartridge for only \$10 and then purchase the Diamond Write and Diamond Paint at a later date at full retail, or I could pay \$30 plus shipping and handling for the cartridge and then get the Write/Paint software, when released, at no extra cost. I decid-

ed to go with the \$10, to save money now and to worry about the software purchases at a later date.

However, Mr. Merrill changed his mind and would not allow me to order only the cartridge. I called several times to attempt to speak with Mr. Merrill, but was always referred to another number or told he was not home. After two weeks of chasing Mr. Merrill around the country, he called my home and spoke to my wife, demanding that I quit "harassing" him with phone calls. I was finally able to reach him and place my order, again, for the Diamond cartridge.

After spending over \$100 on phone calls to USA Media over several months, asking about the status of the cartridge "conversion," I finally received the cartridge on January 30, 1989. In all, I spent over \$180 on the Diamond products and have only received the disk based OS and now the cartridge. There is still no firm date set for the release of the Diamond Paint or Diamond Write programs.

When I received the Diamond cartridge via UPS, I immediately took it to





my computer room and plugged it into my "old" 800 as a test. Unfortunately, DOS XE, which is on the "boot up disk" which you must have to boot up Diamond, is not compatible with the old series of computers. I then plugged the cartridge into one of my 800XLs and it worked! I went to the <Config> menu and "installed" a second disk drive to the desktop. I then tried to read a directory of D2:, or B as it is referred to by Diamond, and received a disk error message.

The disk in drive B was a SpartaDOS disk, and the system had been booted with DOS XE. DOS XE will not read SpartaDOS, and so the error message. However, I did not realize this immediately, as I had never used DOS XE before (and never will again), and so I attempted to read the directory of drive B again. I received the same error as before, of course. I then noticed that the entire system was locked up! I could not "click" on any of the icons, nor would any of the "drop down menus" drop down. The mouse pointer would move just fine but was quite powerless.

Simple, you say, just don't try to read SpartaDOS with DOS XE. Well it is not quite that simple. Because, no matter what DOS you boot up with, you cannot use ANY other DOS at the same time. I.e., if you boot with SpartaDOS, you cannot use ANY file or program on any other type DOS disk. Yes, I know SpartaDOS usually will read MyDOS and Atari DOS format disks, but it will not when you are using Diamond. If you try to mix DOSes, you WILL lock the system up on the second try to access the disk! To get SpartaDOS to work with Diamond, I had to take Diamond out of the computer, boot SpartaDOS back up and copy the files from DOS XE to the SpartaDOS disk, and then reboot with Diamond.

You can get Diamond to work with the older series, 400/800, if you use SpartaDOS 1.1 or the SpartaDOS X cartridge. The same copy process must be followed to get any other DOS to work. You have to copy the files to the other DOS format with Diamond removed.

To format a disk with Diamond is a pretty straight forward procedure, or so you are lead to believe. Simply click on the drive you wish to format, once, then go to the <DISK> drop down menu, and select FORMAT. Answering yes to the Dialog box query, "Are you sure?" will result in the disk in the drive selected being formatted. However, if you use SpartaDOS, you cannot access the disk after formatting it or the system will lock up. Since you cannot use SpartaDOS command files that require parameter, ie. RD.COM, XINIT.COM, DATE, TIME, etc., you cannot format a disk with Diamond when you boot with SpartaDOS, nor can you SET the time or date.

If you boot with MyDOS 4.2, or versions thereof, you get a scrambled free sector count in the window header bar, and then another free sector count of 708, followed by the files that were



on the disk BEFORE you formatted it, followed by another free sector count of 0625 (with DOS.SYS, DUP.SYS and the RS232 handler AUTORUN.SYS files on the disk before you formatted it). The FORMAT option in the <DISK> drop down menu seems to work fine with Atari Dos 2.0 — correct sector count and it even erases the files that are on the disk you format. I did not use DOS XE beyond when I booted Diamond for the first time, nor do I plan to in the future. DOS XE is another great DOS from Atari, following in the infamous footsteps of DOS 3.0 and DOS 4.0, but that is a subject for another review.

When you attempt to get a directory of a MyDOS disk, only the first 3 digits of the sector count for each file is shown. For example, if a file is 0010 sectors long on a MyDOS disk, it will appear to only be 001 sector long when using Diamond directories. The total free sectors at the bottom of the file listing, however, shows all 4 digits! Directories of SpartaDOS, DOS 2.0 and DOS XE seem to work fine. If you try to read an Atari DOS 2.0 directory when using MyDOS, (which is Atari DOS compatible), it will not read the directory correctly. SpartaDOS directories do show the time/date as advertised, but as stated earlier there is no documented way to set either the time or the date using Diamond with SpartaDos.

With the Super Cartridge from ICD, that Diamond is built in, you can reportedly switch to a cartridge plugged into the top of Diamond. This feature seems to work with no problems, with cartridges like PacMan and Space Invaders, but DOES NOT work with BASIC XL from OSS/ICD. I cannot vouch for the compatibility of Diamond with any other cartridge from OSS/ICD, but the prospects would seem bleak indeed. To switch to the top cartridge all you have to do is select QUIT from the <FILE> drop down menu and the top cartridge is turned on and Diamond is turned off. To get back to the desktop you have to turn the computer off and then back on as even a cold start switch will not bring it back.

Loading a binary program with Diamond is simple. Just double click on the drive that the file you want resides and then double click on the filename when it appears in the directory. Another way to accomplish the same task is to click once on the drive icon and then go to the <FILE> drop down menu and click on OPEN. This "opens" the drive and shows the directory. Then do the same for the file you want to run. It is the same no matter which way you decide to do it.

I tried booting the Express telecommunication program from Diamond and was pleasantly surprised to find all of Express's features worked as usual! To exit Express, I usually hit the RESET button and exit to SpartaDOS. However, when I did that with Diamond installed, a row of repeating Ctrl-A's filled the screen. I hit my cold start switch, which resulted in my being



returned to built-in BASIC. When I typed DOS I received the D1: prompt instead of the Diamond desktop. I was forced to turn the computer off and then back on to get back to the desktop.

One nice feature of Diamond is the drop down menus. If any of you have ever used an ST, you know how irritating the drop down menus are at the top that drop down simply by placing the pointer on one of the menu titles, but will not go away until you click the mouse. With Diamond, the menus appear automatically, by placing the pointer on the menu title, but they also disappear as soon as you leave the menu box area! No more clicking on empty space to close a drop down menu.

If you have two windows open, which is the maximum you can have open at one time with a 64K machine, and you bring the directory window that is on the bottom to the top, the directory must be re-read into memory. This takes two passes of the disk drive to do. If any portion of an icon is covered, the entire icon disappears. When using SpartaDOS, if you use the keyboard instead of a mouse-type controller, the key presses are stored in memory and displayed when you quit to BASIC!

The touch table driver that came with the cartridge on the boot up disk locks the system up when it is accessed. There is as of yet, no calculator for the Diamond desktop, nor can you change the desktop colors. There seems to be only two types of file icons, one for .APP extenders and one for all of the rest. According to Mr. Merrill, the Diamond cartridge is supposedly upgradeable through replacement ROM chips. However, my Diamond cartridge is GLUED together, so I am not sure exactly how I am to replace the ROMs, when/if Diamond is updated.

When copying files you can do it any one of several ways. One way to copy a file is to click on the file, hold the mouse button down and drag the file to the destination. You can also duplicate entire disks by dragging one drive icon onto another. You can multi-file copy by "tagging" specific files. To "tag" a file, simply hold down the shift key and "click" on the files you want to copy. When you have selected the files you want, drag them to the destination. That's it! You can also use the COPY function in the <DISK> drop down menu. There are a few restrictions that seem to be undocumented (bugs?):

- 1. You cannot single file copy or duplicate a disk to or from an MIO.
- 2. You cannot copy to or from a folder, also known as a subdirectory.
- 3. You cannot multi-file (tagging) copy to the MIO.
- 4. You can duplicate a disk to the MIO, however the MIO is then only the size of the disk you duplicated.

All of the above restrictions apply to SpartaDOS. Since Atari DOS does not support subdirectories, and MyDOS is only supported as Atari DOS, you cannot use subdirectories with MyDOS.

To duplicate a SSSD disk, it only takes 18 passes! Thank goodness for two drives! Oh by the way, for those of you with Happy 1050s, you will have to turn off your Warp Speed as Diamond will not read directories of disks that use Warp Speed!

In all, I feel that it is a shame to have one of the best computers on the market; have support for that computer dwindling more and more each day; have such high expectations for this desktop for the 8bits; and then receive such a disappointing product. I am not saying that I could do better, as I cannot even program in Assembly, and I do feel Alan Reeves deserves a lot of credit for trying. But if I had it to do over, I would not spend over \$180 on Diamond. I would spend it on a hard drive for my 800XL, something that works and that I could use everyday.

Now, I know that Diamond does not sell for \$180, but for the same price that Diamond sells for, you could purchase the new SpartaDOS X from ICD. Now that's a product you could use every time you turn on your computer and from what I have seen, it works! Of course, I do have a very impressive desktop to impress my Brand X computer friends with, that is until it locks up again. If the bugs I have mentioned, and there are others, receive attention and are remedied, Diamond may yet become a viable product, but don't hold your breath.

After writing this review, I may never again receive support from Mr. Merrill, but I try to call things as I see them. If you have any comments, please call the TACE BBS at (405) 793-7980 (312/2400 baud 24 hours a day) and leave a message.

Reeve Software

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Editors' Note: Having received a Diamond Cartridge in late February, I've noted some differences between the cartridge I have and the one Michael Beard has received. It seems changes were made after the first 50 cartridges were shipped, including the inclusion of the ability to pass parameters to .COM files. The disk I received was configured for DOS 2.0, though the documentation did say it was configured for DOS XE.

To copy to or from a subdirectory (SpartaDOS or DOS XE only), simply open a window containing the files to copy and a second window in which you open the folder. Drag the files from the first window to the second window. I've tested this with DOS XE and it works.

Switching from one DOS to another while using the Diamond Cartridge is definitely NOT recommended! Using Atari DOS 2.5 or DOS XE on a 130XE with RAMdisk set up worked quite well. Also, the cartridge I received was not glued together and comes apart to reveal a cleanly designed board with socketed PROM inside. I have not tested the cartridge with SpartaDOS, nor have I used anything but the ST Mouse driver.

Overall, the cartridge performed well on the 130XE with problems occurring only when going from one DOS to another. The two-window directory limit is not a restriction on 64K machines only — the Diamond Desktop does not allow more than two directories open at one time, but the documentation does state that your own applications can have up to four windows open.



# Hewlett Packard DeskJet

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by LeRoy Valley (TAG)

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Instant success. Revolutionary. I gotta have one! Once in a great while a new product arrives that impacts the entire computer community in this fashion. Not just the Atari community, but the ENTIRE computer community.

The Hewlett Packard DeskJet printer is such a product. Offering printing resolution comparable to a Laser printer (300 dpi) at about 1/3 the cost, it puts professional desktop publishing within reach of the home computer owner.

The DeskJet is an ink jet printer capable of printing graphics at a maximum resolution of 360 dpi (most programs only support 300 dpi). Instead of using pins that strike a ribbon to print on paper (hence the term "impact" printing), ink jet printers actually spray ink through nozzles, and the print head never touches the paper.

Due to its method of printing, the DeskJet is virtually silent when in operation. All you ever hear is a slight whisper as the print head moves back and forth across the paper. Printing speed is high -- 240 cps in draft mode and 120 cps in letter quality mode -- and print quality is excellent. Draft mode printing puts the NLQ mode on dot matrix printers to shame, and letter quality printing is indistinguishable from a high quality daisy wheel printer!

Paper handling is accomplished with the built-in sheet feeder (sorry, no tractor feed) which accommodates both letter (8.5" x 11") and legal (8.5" x 14") sizes. The sheet feeder holds about 100 sheets of paper. HP was even thoughtful enough

to provide you with the ability to feed in envelopes! (But only 1 at a time...sigh). In operation, the DeskJet loads sheets from the lower portion of the feeder, and deposits finished sheets in the upper portion.

Ink jet printers have been notorious for clogging up (due to improper cleaning, bad ink, or worn out nozzles), but HP has solved this problem by using a disposable ink cartridge that includes the nozzles! Each time you replace the ink cartridge, you get a new set of nozzles. No muss, no fuss, and best of all NO cleaning! Replacing a cartridge is as simple as snapping it in place.

The right hand side of the DeskJet sports two cartridge slots and a key pad for changing settings. The cartridge slots can hold a variety of goodies like font cartridges, a 128K buffer cartridge, and an Epson FX-80 emulation cartridge.

The emulation cartridge is a MUST. With this plugged into one of the slots, your DeskJet looks and acts just like an Epson FX-80 printer.

The stock DeskJet is compatible with the HP LaserJet line, and many programs do not supply you with drivers for HP LaserJet printers. (Like Print Master and Certificate Maker). Also, the only internal font supplied with the DeskJet is Courier, and it's only available in pitch settings of 10, 16.67, and 20. You get standard text options like bold, underline, and super/subscripts, but you

don't get italics. The Epson FX-80 cartridge gives you Pica, Elite, and compressed, and also gives you italics! Looking at all the font cards available, the emulation card is the best buy.

BUT...(you knew there had to be a but, didn't you?), when the emulation cartridge is plugged in, you've got an Epson printer. You can't switch off emulation mode with a hardware switch or an escape code. The only way to make your DeskJet act like one is to remove the cartridge! It's a simple task, but it annoys me! I'd love to be able to software select it... heck, I'd settle for a simple switch located on the cartridge.

## DeskJet

Now that you've got that new DeskJet printer and you're using it for desktop publishing, what would you give to reduce your printing time considerably? \$40 or \$50? Well, then, read on!

Both Migraph and Neocept have released GDOS drivers specifically designed for the HP DeskJet printer, and both claim that their driver will enhance the performance of your DeskJet printer. Since these drivers are GDOS drivers, they will only enhance your DeskJet's performance for GDOS applications. Programs in this realm include Timeworks Publisher ST, Easy Draw, Word Up, Athena II, LDW Power, Super Base Professional, and anything else that uses GDOS.

Both packages simply replace your existing driver and your fonts with the custom driver and 300 dpi fonts (unless you already have 300 dpi fonts). After installing the drivers, the first thing that I tested was the speed of each driver. I tested both drivers on four applications. Both drivers were considerably faster than the standard drivers. As an example, printing the same page with all three drivers on Publisher ST, I got the following results:



NOTE: The other font cards that are available simply add a new font to the DeskJet. They don't affect the operation of the printer and they can be left plugged in all the time.

HP sells a 128K buffer that takes up one slot — you can even plug two of them in and get a whopping 256K! I opted for an external 256K buffer. It was considerably cheaper and I've still got two cartridge slots left to plug in goodies!

The key pad has 8 keys on it. The lower four keys let you do a form feed, select the font, select the mode (Draft or Letter), and set the printer On line or Off line. The upper four keys let you move the paper in fine increments in and out, feed envelopes, prime the ink cartridge (this is only done when a new cartridge is installed), and reset the printer.

Now that you've got an idea of some of the features that this printer has to offer, the next question is "How does it perform?" Since it's compatible with the HP LaserJet printers, any program which supports that printer also supports the DeskJet. I've tested it extensively with Timeworks Publisher ST, Publishing Partner, Page Stream, Word Up, Easy Draw, and Athena II. The output in all cases is superb. In fact, when compared with the Atari Laser Printer, the output is actually sharper and shaded images look much better! The only drawback to the DeskJet (when compared to a laser printer) is speed. With laser printers we're talking upwards of eight pages a minute! With the DeskJet, you're looking at about 8 - 10 minutes per page (in a desktop publishing environment).

To perform an actual speed comparison with the Atari SLM804 Laser printer, I used the same Timeworks DTP file for both printers. The file included both text and graphics. The time to print the test document on the SLM804 was 52 seconds, while the DeskJet took 3 minutes and 26 seconds. The next speed comparison was a simple screen dump using the ALT-HELP sequence. The SLM804 took 18 seconds to print the screen while the DeskJet took 2 minutes and 5 seconds.

Using a print buffer speeded up the final output by about 20% and cut the cpu time by 50%! Printing a full page from Publisher ST took 17:25 without a buffer and 12:00 with a buffer. (These figures were obtained using the standard HP LaserJet driver supplied by Timeworks. Using a driver specifically designed for the DeskJet can reduce these times considerably. See the driver review below.)

What else do you need to know about a printer? It's quiet, it's extremely fast (compared to a dot matrix), and output is superb.

Should you buy a DeskJet instead of a 24 pin printer? The answer is YES. It's not that much more money, and the output is considerably better (the resolution of most 24 pin printers is 180 dpi, the DeskJet's is 300 dpi). The biggest argument I hear against the DeskJet is that it can't do labels. WRONG! Avery Laser labels (#5260) work great!

Should you buy a DeskJet instead of a laser printer? You have to make that decision yourself. A laser printer is considerably faster, but it also costs *a lot* more. Yeah, yeah, tell me about

## Drivers: Migraph and Neocept

	Computer Finished	Page Ejected
Standard	17:25	17:25
w/buffer	12:00	12:00
Neocept	10:00	10:55
w/buffer	4:20	8:35
Migraph	10:36	10:58
w/buffer	4:15	8:45

The "Computer Finished" column indicates when my computer was done sending data to the printer. The "Page Ejected" column indicates when the printer finished and ejected the page. As you can see, the buffer really reduced the throughput time! The times posted by the Migraph and the Neocept drivers were so close, that I have to call it a tie. Both drivers also allow you to either print out documents at either 150 or 300 dpi, but the methods that each uses are different.

The Migraph driver requires you to either install two different sets of fonts and then switch between assign.sys files (an easy proposition using G+PLUS) or you can use their Outprint program (supplied with the driver) and select the driver you want to use. I found this method somewhat awkward to use. The Neocept method was much easier. Using the standard Atari Control Panel, simply select Draft or Final from the printer setup screen. That's all there is to it! A very nice touch! Score one for TurboJet.

Documentation for the Migraph software included two 8.5" x 11" pages with enough information to help you get it installed. Neocept provides you with a professionally done manual which includes instructions to install their product for Word Up, Microsoft Write, Easy Draw, Publisher ST, and Other programs. Neocept even includes an INSTALL.TXT file for Publisher ST. After replacing the file on the Timeworks Master disk with this one, you'll be prompted for the TurboJet disks when doing an install. Very nice touch! Score another one for TurboJet. Migraph was nice enough to include a screen dump program for the Deskjet. It works well and it's very fast. Once again, nice touch. Score one for Migraph.

Score is TurboJet 2, Migraph 1. I use TurboJet because of the ease of switching between final and draft modes, but I really like the screen dump program from Migraph. TurboJet, by Neocept, retails for \$39.95. The Migraph HP DeskJet driver retails for \$49.95.



the laser printer you saw in Computer Shopper for \$799. Then add another \$300 for the HP laser emulation board (that is, if you're planning on using the printer for anything useful), and add another \$500 to upgrade it to 1MB.

You don't need 1MB? If you're printing full page graphics you do. Laser printers (due to their design) have to print a full page at a time, and 512K just doesn't cut it. Now you've got \$1600 tied up in your laser printer — just to print faster than me. Oh, and by the way, you've got to keep that sucker clean. You don't want any streaks or blurs on your printouts, do you?

The only maintenance on the DeskJet is to replace the ink cartridge about once every 1000 pages (this figure can vary anywhere from 500 – 1500 pages depending on the type of printing you do) and put paper in the feeder. For the average home computer user, I think that the DeskJet is a tremendous buy!

I purchased my printer from Applied Progressive Electronics (1-800-447-1176) for \$675 + \$12 shipping. The Epson cartridge was \$55, and the ink cartridges were \$14. The folks at APE were very helpful and they are authorized HP dealers.

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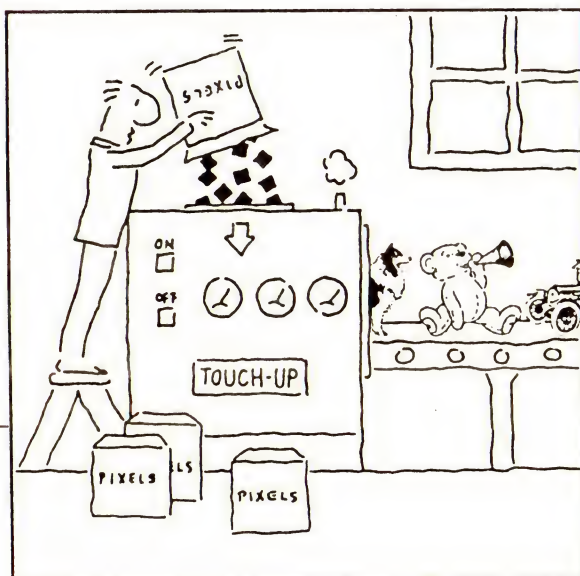
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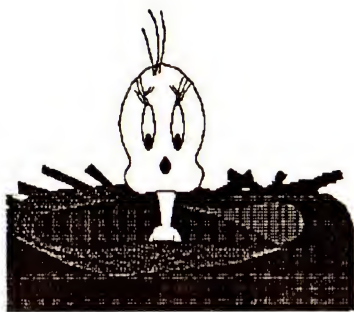
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## The Tweety Board From Practical Solutions

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by ASTI (GLASS)

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This is one hardware review that brings great pleasure and appreciation for the capabilities of my Atari ST.

The Tweety Board's purpose is to bring the terrific sound that's hiding inside the ST out to be appreciated by the computer user. The ST computers employ a 3 channel sound chip from Yamaha for use with the MIDI ports in the recording and producing of MIDI music. Some of which is done professionally by famous groups like Fleetwood Mac.

Some computer owners have MIDI capable keyboards, synthesizers, digital drums, and other instruments through which they can appreciate the three channels of sound (voices?) from the ST. But the rest of us have only had the small single monitor speaker with which to listen to the sounds from this computer, not knowing or experiencing the beauty locked in the heart of the ST.

All three channels from the sound chip are merged into one channel internally in the ST to produce the MONO sound. Now comes the Tweety Board!

The advertisement read "Easy Installation, no soldering!" When the Tweety arrived (UPS, only 3 days after ordering!) and was removed from it's packing, I found myself holding a small printed circuit board with cables dangling from each end.

Playing it smart by going to the small manual first, I was impressed by the neat, complete, and thorough instructions provided. The booklet included separate in-

structions for the 520ST, 520STfm, 1040 ST and the Megas.

Seeing as the installation was going to be demonstrated before the local user group, I figured it would be proper to try it at home first. First I tried installing it in the club's 1040ST.

Wow, that was easy and fast! Took me 17 minutes and only one try. These instructions work! So, let's see what kind of sound this thing will produce.

First, let me explain that the Tweety provides for 3 channels of sound. Keeping in mind that the output of the Tweety has to be fed to an amplified speaker, how does one deal with a stereo amplifier that has only 2 channels?



Not to worry, Practical Solutions included a small splitter patch cord that allows you to combine any two of the three channels.

So, without further ado, I plug the two channels into the input of the stereo with six foot patch cords from the local electronic store (Radio Shack), put the speakers on each side of the computer desk for good sound separation, and run a music program on the computer that normally outputs to the monitor speaker.

Dyn-O-Mite! Awesome!

The sound is clear, clean, mean, and

in STEREO! Okay, let's not get excited, boot up a game. Shazam! The sound effects are realistic.

Oh-oh, the dictator is telling me to turn down the noise...no problem, slip on the ole' headphones.

Back to the music, this is great, now all of the music files that I downloaded from the local BBSes can really be appreciated!.....But I'm digressing from the planned hardware review. Let's be more business like. Ahem.

Within another 1/2 hour the installation was made in a 520ST and 520STfm with the same results. It's true, there's true stereo sound here!

The installation demonstration at the GLASS user group goes just as smoothly, less than 20 minutes (some screws were already pulled from the case to save time) and everyone can see how easy it was to install.

Another club member also purchased a Tweety and described his permanent installation and how he used a separate amplifier and speaker with his stereo to get all three channels of sound, which is even more impressive.

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# The Unintentional, Unexpected, Unwelcome, Uncontrollable Xbios-Virus

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by Dorothy Brumleve

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Recently, I've written several children's programs in GFA Basic in which data files can be saved to and loaded from disk. These programs use no form of file selector box — the program knows what the file names are/will be, and simply clicking a LOAD or SAVE box on the screen initiates the procedure.

I've done very little error-trapping in my programs, but since multiple disk accesses add considerably to the potential for user error, I decided I would install some "traps" in my latest program. Without such traps, my young users are presented with a GEM alert box, proclaiming in decidedly adult language they must "Remove the Write-Protection" for example. I would rather that my users never see such a message.

It so happened that my husband, Tim, had written a MIDI-related program in which errors were handled gracefully. Tim's code checked for errors while saving a file, such as write-protection, an improperly formatted disk, and no disk in the drive, using an Xbios call as follows:

```
A%=Xbios(9,L:Buffer_address%,
L:1,Device%,Sector%,Track%,Side%,
Num%)
```

He attempted to write to a nonexistent sector. If the disk was good, the result of the call should be "-8" which means the sector wasn't found.

To check for an improperly formatted disk or no disk in the drive when loading, the critical call was another Xbios command:

```
A%=Xbios(8,L:Buffer_address%,
```

```
L:1,Device%,Sector%,Track%,Side%,
Num%)
```

Now, almost all the books discussing system-level commands such as Xbios include a little warning to the effect that you'll be sorry if you use this command. And I was sorry.

I made a copy of Tim's listing and proceeded to transfer the relevant code to my own program. I added cute little alert boxes to announce each error; in these, a declining scale was played while an informative message was displayed and the word "Argh!" was written five times down the screen.

All seemed to go well at first. In testing my program, if I tried to SAVE to a write-protected disk, sure enough, my cute little alert box appeared ("Maybe you need to close the little hole in the corner of the disk. Argh!...") and then the program would resume.

If I tried to SAVE or LOAD when no disk was in the drive or the disk was inappropriately formatted, again my alert box appeared ("Oops! Do you have a disk in the drive? Argh!...") and the program would resume. And if I tried to load from a disk that didn't have the file the computer was looking for, my alert box announced the error, and the program would resume.

Yes, the program would resume, and it resumed to do evil works.

If I attempted to load from a disk that did not have the sought-after file, the computer would never bother to read the disk directory of a subsequent disk! And it would do bad things to the subsequent disk, and the disk after that, and the disk after that. It would simply announce that the file was not found — even if I knew the file was on the disk in the drive!

After the first few tests of my new code, I came down to the desktop to take

a good look. Sure enough, none of the disks had the expected file! But I was sure I had saved it on every one of those disks! What was happening? Obviously, my program was deleting the file.

Back to coding, I changed some things around and ran some more tests. When I returned to the desktop this time, a very big surprise was waiting.

It seems that the directory of one of my test disks had been supplanted by the directory of another, but the files themselves remained intact (they were simply renamed). For example, if I ran "GFABA-SIC.PR" on this disk, I wound up looking at a previously-compiled version of my own program, not at the GFA Editor screen.

No, my program wasn't really deleting files, it was rearranging the directories on my disks. Some of the disks involved in this first test were important ones. This explains why I no longer have a single copy of any version of this program written before I put in the Xbios commands.

Ten disks later, I thought I had the problem licked.

Normally, the `If Exist(Filename$)` command will cause the computer to look at the directory and see if the filename is present, but somehow the Xbios commands were interfering with the function of my subsequent `If Exist`. If I forced the computer to read a directory by using the `Files` or the `Dir` commands, the error-trapping seemed to work.

Unfortunately, both `Files` and `Dir` cause the directory to be displayed on the screen, something I did not want to happen in my program. I finally discovered that I could cause the computer to `Open`, `Close`, and `Kill` a new file, and after that, it would read the disk. The error-trapping was then successful; I could load from a new disk even if the previous load from



another disk had been unsuccessful. However, the kinky directory-swapping/overwriting/deleting didn't end. Error-trapping at the expense of disk directories isn't worth it.

I gave up in disgust and told Tim about my miserable state of frustration. What? Hadn't I looked at his code? he wondered. He scoffed; I must have made serious mistakes in the transfer between his program and mine, and he spent virtually all of the next twenty-four hours failing to prove it.

The main problem, as I saw it, was this: when you are presented with a file selector box, you can force the computer to read the disk by clicking in the upper margin of the box frame or on the "X" in the upper left-hand corner. I needed some way to convince the computer to simulate that action even without the benefit of a file selector box. Tim did his coding on the computer I usually use for programming, so while it was busy, I went downstairs to my communications computer and shot off a rambling and incoherent letter, including my code, to my friend John B. Holder of Marathon Computer Press. John has been into computing since he was a small child, and I figured, if John doesn't know how to do it, then no one does.

Turns out, no one does, at least not with GFA Basic. I had

tried, Tim had tried, and now John had tried, and the program still didn't work. And so I took out the Xbios commands, the error-trapping, the cute little alert boxes with a declining scale and "Argh!" written five times down the screen. My latest program has no more error-trapping than the first, and my little users still have to deal with a GEM alert box if they try to save to a write-protected disk.

The episode was not without some positive features: I am positive, for example, that I will not copy any Xbios command out of someone else's program without extreme caution. I am positive that I will heed the little warnings in programming manuals. And I am positive I'll never experiment with the Xbios command using a disk unless I'm ready to reformat it anyway.

[About the Author: D.A. Brumleve, M.A., is involved with children and computers in a variety of ways. The mother of five children, ages 2 to 10, she serves as the adult facilitator of the Children's ST Users Group in Urbana, IL. An avid programmer, she has developed a beginners' course in GFA Basic and is the author of PreSchool KidProgs (MichTron) and numerous freely-distributed programs for young ST users.]

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# HiSoft BASIC -- The New Standard?

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by Michael Bonkowski (MACE)

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In the beginning, when a user purchased an Atari ST, he or she was left with ST BASIC or Logo. Or if you could afford it, you could buy the Atari Developer's Kit which gave us C. So, we plodded along with ST BASIC and hoped that something better came along.

Soon, GFA BASIC became a standard. It allowed the user to program in an environment free of the multi-window interface of ST BASIC. And being BASIC, most users quickly adopted it as the "unofficial" language for the ST. But, certain abilities, like the ability to create desk accessories were beyond GFA's reach. But, dear ST users, a "Superior" BASIC has arrived.

As I write this, Michtron and GFA Systemtechnik have parted company, and Antic will soon be GFA's new U.S. Distributor. Meanwhile, MichTron has an "ace" in the hole -- HiSoft BASIC and its powerful counterpart, PowerBASIC.

For the sake of example, I am going to compare HiSoft BASIC version 1.23 to GFA BASIC version 2.00. HiSoft is completely GEM Based. All desk accessories are available under the "DESK" drop down menu, whereas GFA uses a non-standard menu bar. HiSoft BASIC is a compiler BASIC, meaning that all programs will run at almost machine language speed. No "Run-Time" programs are required. The files that are created are .PRG, .TOS, .TTP, and if you purchase PowerBASIC, you even get the ability to create .ACC files! Try doing that with GFA.

Meanwhile GFA, is a interpreter language. All programs that are not compiled require the GFA Run-Time Program. Even with the Run-Time Program, the BASIC is still interpreted. The only way the user can have a compiled program is to purchase the GFA Compiler, at additional cost. HiSoft BASIC allows the user to load and run ST BASIC programs directly; no conversions are required. GFA would require a large amount of conversion to accomplish the same thing.

PowerBASIC also allows the use of User programmable libraries written in assembly language. It also includes "Program Profiling" which allows the programmer to find out where the program spends its time, on a line-by-line or a procedure basis. It even includes a stand-alone compiler without a editor, for users who prefer a CLI-type environment.

After booting the program, I tried first to run ST BASIC programs. But, as soon as I tried to run it, it generated a error. I found that some of the variables commonly used in ST BASIC are reserved words in HiSoft BASIC. One such word is MOUSE. No problem, since HiSoft BASIC has a Search and Replace feature. I replaced all instances of MOUSE with MICE, and the file ran fine.

This BASIC is compatible with Microsoft BASIC, QuickBASIC, and Fast BASIC. Although, Fast BASIC requires the use of a conversion program which is included. So, I tried the following, I took a file which I wrote in Atari Microsoft BASIC II, and ported it over to the ST. I ran the conversion program in the DCopy 1.9 to convert the file from 8bit text to 16bit text. After doing that, I loaded the file into HiSoft BASIC and ran the file. Now to be fair, the file I used was a text

adventure which made no special calls to the OS.

Now for a Acid Test. I took a demo written in GFA called "The Hat Demo" and attempted to convert it into HiSoft. After spending approximately two hours converting it, I finally managed to get it to work. I must state that I am not fully familiar with GFA, and I, being a carry over from Atari BASIC on the 800, cannot program without line numbers.

Now, according to the GFA version, the program should take approximately 4 to 7 minutes depending on resolution and whether the program is compiled. My version took seven and a half minutes compiled. I found out that a MOUSE -1 command hides the mouse pointer. Now my version finishes in just a hair over four minutes. That's even without adding any other features that are HiSoft specific.

You can also add GEM windows, Dialog Boxes, etc. using a INCLUDE command. This function should be recognizable to all the C programmers out there. There is even a program included on the disk to convert C programs into HiSoft. And since the files are saved in ASCII, you can easily use a different text editor or word processor should you dislike the HiSoft Editor.

MichTron included on the HiSoft BASIC Disk several example programs, including the Byte Sieve, Byte Calc, and Tower of Hanoi. The first two programs listed are the same two programs that give the listed benchmarks in the magazine ads. The other one is a program that really shows what a compiled BASIC can do. Watching flashes on the monitor screen while the program moves the pictured rings around is a sight. You can't even keep track what ring is on which



post, unless it doesn't move often. Also on the disk is a file called CHECKST.PRG. Should you have a problem with the BASIC, this program supplies MichTron with enough information to hopefully find the problem and correct it.

Michtron also offers a upgrade option to HiSoft BASIC owners. Should you wish to upgrade to PowerBASIC, just send your owners manual, original disk and difference in the price between HiSoft BASIC and PowerBASIC.

Now, since this superior BASIC is in a early version, there a bound to be bugs. So far I have found no MAJOR bugs, but one minor bug exists. I am not going to go into detail of the bug, because it is minute problem.

I could suggest some improvements even in the manual. For example, the manual contains 387 pages, and NO Index! And of the 387 pages, almost 200 pages describe the reserved words. Now, that's fine for someone who knows a lot about BASIC, but for a newcomer, you would need to get a book to learn to program BASIC first.

Also, as this review is being written, MichTron is continuing its special offer. If you send a photocopy of the copyright page of ANY commercial BASIC, you can receive HiSoft BASIC or PowerBASIC for HALF PRICE! You can get HiSoft BASIC for \$39.97 or PowerBASIC for \$79.97 (Plus \$5.00 shipping and handling). According to the article, this offer ends March 31, 1989. So hurry!

Overall, this BASIC is a welcome alternative to the GFA BASIC dominated ST world. If you enjoy programming in a structured environment, HiSoft allows this. And if you prefer programming with line numbers, like I do, HiSoft is your best bet. My own opinion is "Good Bye GFA" and get your hands on HiSoft BASIC or PowerBASIC. You won't be sorry you did. I'm not!

[Author's Note: As I was just about to send this review out in the mail, I read that MichTron has renamed PowerBASIC to HiSoft BASIC Professional.]



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20 MB 48 ms	- \$525
40 MB ST251	\$745
65 MB 22 ms autopark RLL drive	\$845

3. 4.5" wide x 6" high x 13" deep with single port host adapter  
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No Drives--Install your own\$249

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40 MB ST251	- \$645
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4. CPU CASE, 18" wide x 12" deep x 8" high.

Upgrade your 520/1040 to the MEGA standard, separate CPU and keyboard, gain space for 3 each 3.5" and 5.25" half height floppy and/or hard drives in two separate drive bays.

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\* a reset button on the keyboard makes a warm reset easy.

\* an adjustable circuit delays the CPU on power up, allowing a totally automatic bootstrap.

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\* The plane immediately above the ATARI motherboard is reserved for future expansion. A 68020/68881-2 coprocessor board with sockets for up to 8 MB of high speed 32 bit memory is currently being developed.

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30 MB full ht. CDC 45 ms	- \$465

Please note that you get back about half of the CPU case costs after buying a Hard Drive Kit.

Host adapter cards are also separately available and come with software, either bare or with case and 6' long round shielded SCSI cable with embedded power supply lines. Up to 20' cable length and additional connectors, made to order available!

Two different types are available, both are full SCSI versions with DMA through connector, the higher priced one has also a real time clock. Prices after the "/" are for host adapters with cas/cable..

\$79/119 with clock - \$119/159

Space limitations don't allow a more detailed description. For complete catalog contact:

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# Amaze Yourself with the Amazing Construction Set!

---

by Bob Retelle (MACE,WAUG)

---

The Amazing Construction Set Demo is a little gem of an ST program that's been floating around on BBSes for a couple of months. I downloaded a copy from the AtariArts Forum on CompuServe a little while back, and just got around to looking at it last week. Anyone with a combination of one or more kids and any number of rainy days will love this "amazing" program!

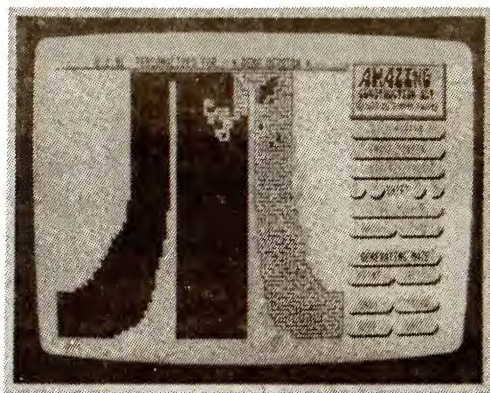
Written in Personal Pascal by Steven Pauley, the Amazing Construction Set (ACS) combines a simple drawing program with maze generating and printing routines, all wrapped up in a very professional-looking package. The ACS is being commercially distributed directly from the author for \$14.

The demo version is fully functional, but the ability to Save pictures to disk has been disabled, and some of the final options are limited to being used twice. The program will run on any Atari ST with a color monitor.

Basically what the ACS does is to let you draw simple shapes and pictures, then it turns them into mazes similar to the ones you sometimes find on paper placemats in restaurants.

The program comes with quite a few pictures to use as samples, or to modify further. Simple shapes like Pac Man, hearts or smiley faces work best, with the size of the picture determining the level and complexity of the maze you created.

The drawing section is done on a 78x63 grid and includes the basic functions of draw and erase and filling or clearing the entire screen or a specific section. Once a drawing is completed, the program checks to see that all the borders are continuous, then the maze is created within the outline. You can even select



from among several choices for the Start and Finish of the maze. Each maze is created randomly, so every time you run the "Generate Maze" function a different maze will be created. A very helpful Undo function is available to recover from "oops" situations.

To give a better idea of what the ACS is all about, the illustration shows an Atari symbol I made up in a couple of minutes. With a little more time, I could have evened up the sides and made it completely symmetrical, but even the quick drawing isn't too bad once it's fully converted into a maze.

The picture shows the program in the middle of creating a maze within the outline of the Atari symbol.

Once your maze is completed, you have several options. You can solve the maze on the screen or have the computer solve it as you watch, but the most useful option is to print the maze out on paper.

The ACS works with any Epson compatible printer and allows printing in three different resolutions.

I tested the program using two bored 12-year-olds on a dreary winter day. The testers' comments ranged from "Oh, neat!" to "This is TOO hard!" The documentation mentions that the larger sizes can be difficult to solve, but they stuck with it, resulting in some quiet times for everyone. Next time, they want to make their OWN mazes!

The author mentions that his 8-year-old son likes to run the program, and the Amazing Construction Set can be a valuable creative tool for children of many ages. Teachers could make good use of the ACS, and I'll bet that a club newsletter or two could be spiced up with a maze in the shape of the club logo!

The full version of the Amazing Construction Set can be obtained by sending \$14 to:

Steven Pauley  
2547 83rd Court North  
Brooklyn Park, MN 55444.

The author mentions that he will also include four other programs he's written, on the disk with the ACS. This uniquely creative application is highly recommended!



# Prism Magazine for the 8bit Atari

---

by Bob Retelle

---

This month AIM has something special for its 8bit readers — the first edition of Prism Magazine, a disk based magazine with games to play, articles to read, a useful utility program and some educational programs.

Like most things in life though, there's a catch. This isn't a NEW enterprise, or one that's likely to be continued. This first (and most likely, last) issue of Prism Magazine was created in 1982 but never released. Now, through your User Group and Atari Interface Magazine, you can own a real "collector's item!"

Back in 1982, there were a couple of "Disk Magazines" available for the 8bit Atari, but John Wilson and I weren't very satisfied with the ones we saw. John and I had been writing games and programs for the Atari, and before that, Ohio Scientific computers, both for my company, Pretzelland Software, and John's Unicorn Software.

We decided that we could do better than the existing disk magazines, so we formed Magnetic Publications and eventually came up with the name "Prism Magazine." (I think it had something to do with the colorful nature of the Atari... boy, it HAS been a long time!)

We planned on six issues a year, with each disk as full as we could make it (the editorial on the disk proclaims our unofficial goal of an "ERROR 162" for every issue). We had hoped to attract other pro-

grammers and writers, but we figured we could fill at least the first year's disks ourselves if necessary. Besides programs and articles, we also wanted to include useful subroutines and character sets our readers could use in their own programs (which they would hopefully then submit to us for publication!).

John had been working with the Voice Box synthesizer from the Alien Group company and was interested in including speech in many of our programs. We'd considered adding Voice Box dictionary files containing phonetic translations we'd worked out for the programs, as well as those submitted by our readers.

Since then, John has worked out a VBI routine for the Cheap Talker speech program that allows a program to speak without having everything screech to a halt (you may be seeing this application in a future issue of AIM).

Since both of us had young children, we wanted to include educational programs, and since we were both game players, we were going to start a "National High Score Hall of Fame" to be in-

cluded in each issue. Also, the programming techniques used in the games on the disks were going to be the subject of a series of tutorial articles.

After much planning, we got our programs together and I wrote the "shell" program that handles loading and displaying the text articles, and also loads and runs the games.

The first issue was assembled, the DOS was played around with (we expected that the disk would be pirated, but we hoped that the entire disk would be copied and kept together), and the write-protect tab was stuck on the very first Master Disk.

Unfortunately, the timing of our project was all wrong. The Atari market was starting to die out (the first time), and it didn't seem like a good time to try introducing something new. The disks went back into their holders, where they've remained until now.

Recently though, John and I were talking about the "good old days," when you could control an entire character set with just one POKE, and the only "memory management" you had to do was worrying about running out at 48K!

(For an idea of just how old this disk is, check out the line at the end of the Editorial that says "Atari is a trademark of Warner Communications!" John suggested that it would be better to just give the Prism Magazine disk to the User Groups, rather than have it go to waste.

Since AIM doesn't have a disk edition yet, what we're going to do is to make the disk available to the User Groups.





and to upload a Diskcommmed version to CompuServe and club BBSes. The individual files are still copyrighted by John Wilson and myself, and the entire disk is copyrighted by Magnetic Publications, but it may be freely distributed, as long as it is unmodified.

If you'd like a copy of the Prism Magazine disk, but you don't have access to any of the club libraries or BBSes, you can send \$3 for shipping and handling to

Atari Interface Magazine  
3487 Braeburn Circle  
Ann Arbor, MI 48108.

The contents of the disk are an Editorial, introducing the magazine and some of the ideas behind it, then a short "In This Issue" file introducing the articles and programs.

Then there's an educational program written by John Wilson to introduce very young children to the concept of naming colors.

The program uses the Alien Group Voice Box to speak directly to the child, and to give supportive encouragement. The

instructions on the disk give details on how to customize the program to include your child's name. This program can ONLY be used if you have a Voice Box connected to your computer!

Next is a Utility program that John wrote to aid programmers who want to include machine code subroutines in their BASIC programs. It will convert a binary file into DATA statements which can be ENTERed into a program.

The first of our games is one I wrote called "Air and Sea Patrol," inspired by an old 2600 game cartridge. (I used to waste countless hours standing in Sears playing that game on the demo units!)

It uses the seldom encountered Wide-Playfield option, and has Display List Interrupt and Vertical Blank Interrupt machine code for color, sound and character set animation. You have to blast planes and submarines with your destroyer, while avoiding their bombs and torpedoes. Anyone who's ever used an Ohio Scientific computer will probably recognize the character set in this game!

The next game is "Kamikaze Saucers," which John wrote, and which uses Vertical Blank to move players and strings to move the graphics. It's a horizontal scrolling, rotating gun turret, in which you have to defend against the alien saucers that are crashing into your station.

"The Playground Maze" is an educational "arcade" game that I wrote for preschoolers. Many times smaller children are attracted to computer games, but find most of them too fast or challenging for their motor skills.

This game is completely nonviolent, and can be played at the child's own pace. It introduces problem solving and gives practice in counting and the alphabet. There's a little man lost on the play ground, and the child has to lead him back to his house, through all the obstacles that are scattered around.

The fourth game is a logic puzzle from John, called "The Rings of Atari." It's modelled after one of those simple looking, but devilishly difficult chinese wire puzzles. All you have to do is turn off all the lights.. ah, but there's a slight catch...

Finally, there's an article giving tips on how to win at "Way-out," one of my favorite 8bit games, from Sirius Software. We'd planned on running a series of these "Playing Tips" articles for popular Atari games.

If you like what you see on the Prism Magazine disk, let us know through AIM, and we'll see what else we can dig up and dust off. John has several other games that he's finished, or are near completion, and I have a few things that I just KNOW are around here somewhere.

If there's enough interest, we can either run the programs and articles here in AIM, or maybe even put together some more "issues" of Prism Magazine!

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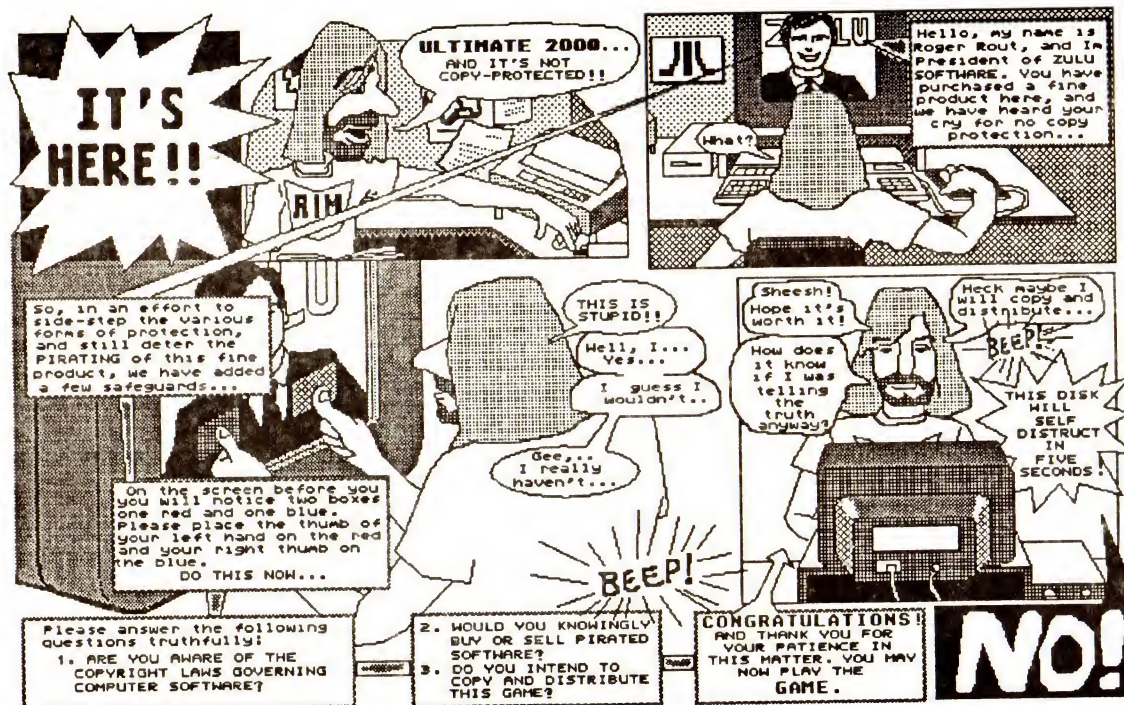
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# Add a Generic 3.5" Double Sided Drive to Your ST

---

by James Lacassagne

---

## Purpose

This document is a description of the hook-ups and modifications that I found necessary in adding a 3.5 inch double sided drive to my Atari 520 ST. It is intended solely as a guide to anyone who is interested in saving a few dollars by using an "industry standard" drive in place of the Atari SF314.

## Warning

This installation seems to function properly for my system, but I cannot guarantee anything. Also, the only way that a saving will result is if a suitable power supply is already available, or can be obtained at a very low price.

## Requirements

One 3.5" Double Sided Drive w/Installation kit. Cost: \$130. The Unit I used was a Toshiba ND-352 which came with a multi-purpose mounting kit. BE SURE that the unit is XT compatible!! (720K, etc.)

One 5V/12V DC Regulated Power Supply (at a cost of around \$25). The supply must be capable of supplying 5V.±5% @200 mA and 12V.±5% @300 mA. I saved some money here by using the same supply that I used for adding a 5 1/4 inch drive as described in numerous articles in magazines and on Bulletin Boards.

One 34-pin Card Edge Connector (\$3). Yes, This is the "industry standard" used on all XT's and Clones. I got mine at Radio Shack.

One standard Atari 3.5 in Disk Drive

Cable (\$8). Preferably, use one of the After Market types, 6' or so in length.

One Disk Drive Case (cost ?). This is optional — I still haven't found a good cheap one, but the drive seems to work fine.

## Procedure

There are two ways to proceed with this project depending on whether you want the new drive to be A or B. The Drive B method is the simpler, so I will start with it.

Cut the Standard Drive Cable in half (Save the other half for another project—maybe!). Strip back about 2" of the outer insulation from the cable. DO NOT cut off the shield wire (a layer of wire woven around the multiple conductors in the cable). Carefully unweave the shield, and twist it to form a wire of its own.

Since the 34-pin connector that I used was designed for ribbon cable, some ingenuity is required here. Each pin on the connector ends in a V shaped stud designed to separate the ribbon cable wire and cut only its insulation when the cover is forced in place. Since most of the wires in the cable go to the top row of the connector (the even-numbered pins) and the shield goes to the bottom row (along with the wires from pins 3 and 7 of the Atari connector) I divided them accordingly and routed them above and below the connector cover.

Very carefully, I pushed each wire far enough into the corresponding Vstud to hold it in place. I then forced the cover down, forcing the wires the rest of the way into the V. By trial and error I found that the two ground wires (pins 3 and 7)

in the cable did not provide a sufficient ground path, causing unreliable drive operation.

I overcame this by (gasp!) tying the shield to ALL of the odd numbered pins on the connector. (That's what the twisted shield wire is used for.) Carefully lay it over the bottom row of Vstuds before putting the connector cover on. The connections follow:

(NOTE: the colors mentioned are for an Atari Cable and you should check if you are using an After Market Cable.)

## Standard Corresp.

34 pin	Atari	Signal	Color
2	*	media chng	
4	N/A	in use	
6	N/A	d4 sel	
8	4	index	yellow
10	5	d0 sel	green
12	6	d1 sel	violet
14	N/A	d2 sel	
16	8	motor on	brown
18	9	direction	orange
20	10	step	grey
22	11	wrt data	pink
24	12	wrt gate	lt. blue
26	13	track 0	lt. brown
28	14	wrt prot	lt. green
30	1	read data	red
32	2	side 0	white
34	*	rdy/med ch	
(any odd)	3	logic gnd	blue
	7	logic gnd	black

Assemble the Disk Drive and Adapter kit. It should have come with a power cable adapter with a std XT connector on the end. You can either buy a mating connector or cut it off and splice directly



to the wires. (Generally, pin 1 (red) is 5V, pin 4 (yel) is 12V, and pins 2 & 3 (blk) are Ground.) The Installation Kit may refer to a jumper on pin 34, but this can be ignored.

Now, the only modification to the drive can be made. On the Installation Kit PC Board, a Jumper must be soldered between pin 2 and pin 28 of the Drive Connector. (This is the one that actually connects to the Disk Drive. It is identical in pin layout to the Std connector, with pin 2 on the top left as you look at it.)

This connects the Media Change signal on pin 2 to the Write Protect signal. (Thanks to Analog2 for pointing me in the right direction on this one.) These are both open-collector, active low signals, and can be safely wired together.

This should be all that has to be done to make the drive work. Simply plug the cable into the OUT connector of the first drive or the 1040, and away you go.

If you have a 520 and want this to be drive A, the procedure is the same, except DO NOT CUT THE CABLE IN HALF. Instead, strip a 3-4 in. section in the center of the cable, cut and unweave 1/2 of the shield.

Lead the wires over the Vstuds as before, but cut the wires

from the Atari connector pins 5 & 6 (computer end). Pin 5 wire is connected to the Std connector pin 10 and pin 6 wire is connected to the remaining end of pin 5. (The part that will go to the second drive.) This brings the ds1 signal to the ds0 pin on the second drive, just like Atari does it. You can cut off the remaining pin 6 wire if you like, since it doesn't get used. Don't forget to attach the shield to the odd number connector pins.

If you have understood and followed my directions, the drive should function properly. If not, there is not much that can cause damage. My version will read and format and write double and single sided disks without any problems. If you encounter any difficulty, I can be contacted through Delphi as JIMSL or CompuServe No. 72257,1613.

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## USER GROUP INFORMATION FORM

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City/State: \_\_\_\_\_ ZIP: \_\_\_\_\_

Phone: \_\_\_\_\_

If you wish to receive information about one or more of the AIM participating groups, such as membership forms and disk catalog information, please complete this form and return it to:

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Please send me information on packages on the following user groups:

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Cascades Atari Computer Enthusiasts (CACE) is the Atari club in and around the Jackson County area. The main purpose of the club is to help inform new users and to promote the use of Atari computers in the community.

President	Brent Fisher	764-4599
Vice-President	Tim Hotchkiss	522-8912
Secretary	Joe Cripps	782-0199
Treasurer	Craig Schaff	787-3970

The current membership dues are \$10 per year, or \$14.80 if you wish to subscribe to Atari Interface Magazine, and are payable at any of the CACE monthly meetings, or by mail. Club membership includes access to the entire club software and publication libraries, along with a monthly published newsletter. Any written communication with CACE or payments by mail should be sent to: CACE, P.O. Box 6161, Jackson, MI 49204. Our meetings are held on the second Sunday of the month, from 1 pm to approx. 4 pm. The meetings take place at the East Side Lounge, on the corner of Horton and Gansom Streets in Jackson, MI.

### Fishin' Around by Brent Fisher

Ladies and Gentlemen, Trolls and Tramps, Cross-eyed Mosquitos and Bull-legged Ants. I always wanted an excuse to use that phrase. Anyway on with the news. We have finally gotten a copy of the new DOS XE from Atari. I had originally received the manual but the disk, it seems, slipped out of the envelope as it was about to be shipped to us. Atari enclosed a letter with the manual that stated that the club's copy (the one that I am referring to) may be freely distributed to the club members. The only drawback of this is that the manual is a great help when it comes to figuring out how to use this DOS. Atari must have figured on this also since they stated that if anyone wished to receive the manual and the disk those persons could send Atari \$10 plus another \$3.50 for shipping and handling. If anyone would like the address, please contact me. Now I have to admit that this is probably not a bad deal; the only thing I don't like is the fact that XF551 owners have to also send in money for a DOS that they were supposed to have received with their disk drives. Well I suppose that I have ranted and raved enough for this month, so on to other things.

We had a relatively good turn out at the meeting last month, even a couple of new members showed up. We did not unfortunately have the proposed MIDI maze competition as was thought, but all in all I still think that we had fun. I can't wait to see if the 8bit version of MIDI maze comes out, but I have also seen how development for the 8bit has been going the past few years. So all that I will say is don't hold your breath. Since more ST users have been joining the group recently, perhaps we can again have an ST public domain library though of course that all depends on the reaction of those members who are interested.

On another note if anyone has an 8bit disk drive or a modem that they are not using please contact the club as we would like to talk to you.

Well I would like to think that my column this month is not

quite as ragged as last month's, of course I also gave myself a little more time this month too. One final note from my thoughts for this month. The March meeting will take place on the 12th which is a Sunday and the time in which we will be there will be between the hour of 1pm to approximately 4pm. I hope to see you all there.

### Treasurer's Report by Craig Schaff

First things first, I would like to welcome all of our new members: Jason Steffes William Freiburger Ken Mehi

A message and reminder, if you are receiving AIM and your dues expire, you will receive the CACE newsletter until your dues are renewed or until two months has passed. If you are receiving the CACE Newsletter, you'll receive it for two month after the expiration date on your mailing label. Your expiration date is on the upper right corner of the mailing label for both AIM and the CACE newsletter. If your date has been circled in RED, it means that your dues has expired and that it may be your last issue.

If you would like to renew your membership in CACE and receive the Atari Interface Magazine, you may send a check or money order to the club at the above address or you can pay at the club meeting. Club dues are \$14.80 per year with the AIM magazine. You may renew at any time, even if you still have a while to go on your current membership.

If you haven't heard, your club has a "bulletin board" up and running. You may call any time, as it is open and operating 24hrs a day, seven days a week. There is no charge at all, and if you mention that you are a club member, your time on-line will be upped to 45 minutes! The BBS is open to all computer types with a modem. If you don't have a modem, borrow a friend's or use a friend's system! There is Electronic Mail messages called E-Mail, that will send and receive messages to and from other members of the BBS. There is a General topic board that you can join in on on going conversations of any topic, and if you need help or have a tip that needs asking/answering you can leave it here on the General Topic board. There is a FOR SALE board, If you have ANYTHING that you want to sell, or you are looking for that one certain item, leave a message on the FOR SALE board. Also there is a CACE members only board, if you are a CURRENT member of the CACE club, you'll have access to this board. In it you'll find information about upcoming meetings as well as highlights from past meetings. Plus you'll hear it here first about the up-coming picnic, trade fairs and shows. The Bulletin Board (BBS) also allows uploading and downloading programs and files for ATARI 8bits only (sorry, but for now the disk drive that handles the files is on the fritz, no up/downloading as of yet). The Phone number for the CACE BBS is 787-4011. It makes no difference if you have a 300 or 1200 baud modem, it'll handle it.

Well my space is up, I'll see ya at the meeting or on the board. bye!!!





CHAOS is the Capitol Hill Atari Owner's Society, serving the Atari community of the Lansing, Michigan area. The Campus Hill Atari Owner's Society is the Michigan State University chapter of CHAOS.

Membership dues are \$15.00 per year and entitles members to a 1-year subscription to the Atari Interface Magazine, a free disk from our regular library, and access to our libraries and other resources. Dues may be paid at any CHAOS meeting or by mail. If not using an official membership application, please include your name, address, phone and a list of your equipment and interests.

Sysop John Nagy and CHAOS invite you to call one of the country's finest BBSes at 517-371-1106, 300/1200/2400 baud, 24 hours a day (Atascii/Ascii) serving both 8 and 16 bit Atari computers. Send inquiries regarding CHAOS, mail orders, memberships and so on, to: CHAOS, PO Box 16132, Lansing, MI 48901.

General meetings of the membership take place several times a year. 8bit and 16bit Special Interest Group meetings take place monthly. The S.T. Interest Group meets on the second Saturday of the month. The 8bit S.I.G. meeting, for 400/800 and XL/XE owners, takes place on the third Saturday of the month. The meetings take place at the MSU Physics-Astronomy Building, Physics Road, Room 118. Meetings begin at 10 a.m. sharp and last until 1 p.m.. Members and guests are welcome to any SIG meeting that interests them. To get to a meeting, take East Grand River to the Collingwood Entrance for MSU. The first available left turn is Physics Rd. The Physics-Astronomy Building is about 1 block from the corner, on the right hand side. Park in the gated lot just past the building.

Illegal copying, or any violation of copyright laws, is not condoned or allowed at any CHAOS-sponsored function, including the club BBS.

### President's Corner by Leo Sell

This month marks our first with the new relationship we have with AIM. In keeping with our belief that our club and club members are best served by a club controlled and owned newsletter, we are now publishing our own newsletter as well as participating in AIM. Yes, you heard right. We will be continuing a limited relationship with AIM. I'd like to thank Unicorn Publications for the opportunity to participate in this way and get the best possible subscription rate for our members.

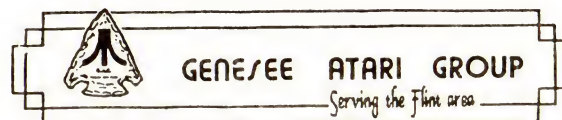
It's certainly going to be a challenge not to repeat myself too much in writing three columns. Actually it's inevitable, so I hope you'll forgive me. It looks like a busy spring and summer coming up. We will be participating in (and needing help with) most of the following computer shows:

**MAXIT** — The spring Computer Show, sponsored by the Michigan Computer Consortium. MAXIT will be April 9 at the Clarion on South Cedar.

**Atari Expo** — MACE, one of our sister Atari User groups, has scheduled an AtariFest for May 6 and 7. As of this writing, we have received no information about club participation, but assuming everything works out, we'll likely be there.

**World of Atari** — This show, sponsored by ST World magazine, is taking place at the Hyatt Regency, Dearborn on June 24 and 25. Atari Corporation, as well as other big names in Atari computing, will be there. Based on what I've heard, this should be a real high quality event. We're waiting for details on club participation, but I certainly intend to attend.

Hope this finds you well. Happy computing.



### President's Report by Jerry Cross

Lots of things happening in the next few months. This month you will be receiving two newsletters, AIM, and a new publication that is jointly put out by CHAOS and GAG. More information on this will be given out in a special mailing this month.

We are looking for volunteers to help out in a few shows coming up in the next few months. If you can help out in any way notify one of the club officers. These shows include "The World of Atari" in June, an AtariFest put on by MACE, and a few computer swap-n-shops during the summer. It's important for Atari clubs to be represented in these shows to let folks know Atari is still around and where users can go to for help and support.

Also, just a reminder for those who can't attend the monthly meetings. GAG disks are available from Discount Computers on Corunna Road. They are open 7 days a week, and this makes it very convenient for you to get the disks you want. Thanks to Lou Stones' help, we have signed up several new members through his store, and have sold a lot of disks.

The Genesee Atari Group is a non-profit group of Atari owners in and around Flint, Michigan. Our purpose is to provide assistance to users of Atari personal computers. This organization is not affiliated with Atari, Inc.

GAG meets on the second Wednesday of the month at Neithercutt School, located at 2818 Crestbrook Drive, Flint. Meetings begin at 6:30 pm. All are welcome. GAG membership includes a monthly newsletter, access to our growing magazine library, and public domain disks.

Membership: \$15 yr.

For Information contact:

Genesee Atari Group PO Box E Flint, MI 48507

Jerry Cross 313-736-4544

FACTS BBS 313-736-3920

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and ask for Tony Donofrio**





GKAUG meets on the second Saturday of each month at 11 a.m. in the Dewing Hall, Room 305, on the Kalamazoo College Campus, corner of Academy and Monroe. Dues are \$25/yr and include a subscription to Atari Interface Magazine.

President	Frank Fellheimer	657-6106
Vice President	Dan Youngs	
Treasurer	Dave Bryant	
Librarian	Dale Vincent	
Archiver	Dave Oldenburg	
SysOp	Alex Stevens	
GKAUG BBS		(616) 657-2665

Great Lakes 'GLASS', Michigans only  
Atari 'ST' only Users Group  
ST Support I ♥ my ST!

Meetings - First Thrusday every month, 6 p.m. to 9:30 p.m., Athens High School, 4333 John R, Troy, Mi., 1/10 north of Wattles <17 Mile> - Room 1528 - Mailing Address - P.O. Box 99737, Troy, Mi. 48098 Phone - (313) 828-1653 after 4 p.m. - Steve Mileski, president

Dues - \$1.00 per month, ietjoin in April - pay \$9.00, all memberships expire on January 1, each year. Non-members welcome at no charge.

#### From The Desk Of The President...February 6, 1989

\*NOTE\* Would the person who called and left a message on my answering machine inquiring into how to join GLASS please forgive me for not returning your call? You see, you forgot to leave your name or number, so I wasn't able to. Please call again!

This year is going to be interesting for GLASS, the Atari community, the Atari Corp, various Atari publications, the Atari hardware and software developers, and YOU...the Atari user!

Atari Corporation...is promising stronger communication and support for the user groups. We did receive a package containing containing a DOS-XE Master Diskette (5 1/4 disk) and an Atari DOS-XE:XF551 disk drive manual, and some "I LOVE (heart) ATARI" bumper stickers. There was no cover letter explaining this wonderful gift. Atari seems oblivious to the fact that we are an avowed 'ST' user group. If any of you members also have a use, need, or desire for the DOS-XE Manual and Disk they will be given to the first member that contacts me.

At the last General Meeting the following items were given away; ST joystick port extender cables (to Jerry Majeski), Cross Town Crazy 8's, the game (to Joe Gumbleton), and the February 1989 issue of START Magazine with disk (to Fred Wixon). The following peoples numbers were selected but did not receive the gifts because they were not here; Richard Melmine, JoAnn Roth, Jackie Appleton, and Myron Bell. Remember! There is no cost for the give-away, all you have to do to be eligible to win is be a paid member and be here!

The Atari publications, START, ST-Informer, ST-World, and others, continue to bring us excellent information, reviews, news, and opinions. Thanks guys, you're doing a fine job!

You should get the February 1989 issue of Radio-Electron-

ics. Inside, in a section called Computer Digest, there is a glowing review of the Atari ST line. Regarding a new kid on the block, I'd like to mention the Atari Interface Magazine or AIM. Of course, we all know that this is the replacement for the Michigan Atari Magazine from Unicorn Publications and that it has retained the original flavor and content. Several Michigan user groups besides GLASS currently use AIM as their club journal.

The Atari ST user has become more knowledgeable about their computer and the myriad of things that can be done with it, whether it's Word Processing, Desk Top Publishing, Midi-Music, Art work (graphics), Data-Basing, Telecommunications, Educational Programs, or Financial Planning. In spite of some of the 'gloom & doom' feelings that abound regarding the future of the Atari computer line I can say that I LOVE MY ATARI ST!

The GLASS users group is growing. By the end of the February meeting we have a total of 42 active 1989 members. Considering that we started out on January 1 with zero this is a good sign of the strong approval of GLASS by it's members. New members include Mike Cornwell of Roseville, Chuck Masek of Sterling Hts., and Dennis Thornton of Rochester Hills. We welcome you to GLASS and hope to see you every month, because it's at the General Meeting where everything happens. The following members re-joined this month Thomas Heiden of Warren, Jack Flegg of Fraser, and Rich Schneider of New Baltimore. Welcome back! I would like to acknowledge that many of our members drive 30 miles or more to attend the meetings, so we must be doing something right.

This month I would like to introduce you to GLASS member Neron Nesmith. Neron and his wife Judy, live in Livonia (quite a way to come to a user group meeting) and he works for a Brighton firm called ESP (for Electronic Personnel Services) and is currently attached to the Cadillac Group of Dearborn. Byron originally hails from Dearborn Hts.. In his early 30's, he finds a certain fascination for the Atari ST. First getting his ST to help him write term papers and the like for college classes, he soon discovered an interest in it's musical abilities. His hobbies are electronics tinkering and ST computing.

When asked to make a statement about the Atari ST his reply was, "I continue to be in a state of amazement about the quality of the professional software available for the ST. It's some of the most powerful, sophisticated, and yet user friendly programming I've ever seen!" When asked what some of his personal software favorites were he had trouble deciding between Universal Item Selector II, Multi-Desk, and the Mavis Beacon Typing Tutor.

His opinion about GLASS is that it is "Fun, friendly, and refreshing in it's approach to it's members." He liked us enough to accept the position of Executive Secretary for 1989. Neron, welcome aboard! Your involvement and high praise for GLASS is appreciated and we hope you continue to enjoy our company! And to Mrs. Nesmith (Judy) we say "Thank you" for sharing Neron with us.

Steve Mileski





Next Meeting: 6:30 P.M. Wednesday, 5 April 1989. Wyoming Public Library.  
3350 Michael S.W.

Tim Feenstra	President	(616)784-6230
5625 Buthview N.E.	Comstock Park, Mi. 49321	
Greg Williams	Vice President	(616)698-7319
George Nosky	Treasurer	(616)942-1527
Bob Bulliment	Secretary	(616)457-1766
Chuck Baughman	Librarian	(616)795-7373
Terry Reine	Membership	(616)698-7244
Gary Heitz	Director	(616)676-0112
Gerry Borysiak	Director	(616)896-9358
Charlene Bird	Director	(616)795-3593

### President's Monthly: 17 February 1989

Well, this month I have good news, and I have bad news. First, the bad news is that our Spring Atari Fair has been postponed. It appears that it will be held this fall with the inclusion of other computer clubs (Apple, IBM, and Commodore). More later as the details get worked out.

The good news is that the SpartaDOS Construction Sets have arrived and will be passed out at the March meeting. If you ordered one and did not come to the meeting, thank you, I'll put it to good use. Just kidding, contact me, and we'll get yours to you.

The past couple weeks have found me working with SpartaDOS. And I personally feel it is the best Disk Operating System available for the 8bit Atari, at any price. Once I got a little familiar with the commands and the use of sub-directories and batch files, it was easy to do most any type of disk task with ease. It is also very similar to the MS-Dos system that a lot of us use at work. It is comforting to know that you no longer need to know how to use two 'different' operating systems. With SpartaDOS and a few Public Domain and Shareware programs, anyone should be able to perform all the tasks they wish, and at a very reasonable price tag. ICD has a fantastic product here. If you do not already have SpartaDOS, and you do a lot of disk work, you should consider it.

A new addition to the meeting this month is the electronic questionnaire. With it I hope to get insight into the needs and thoughts of the members. I also suggest that newer members use it to ask those questions that they are to shy to ask at the meeting. Terry Reine will also use it to update the member hardware list, and possibly add a user software list for those who need info on a piece of software they plan to purchase. Let's all use this new tool to it's fullest, and help other members get the information they deserve.

The little Calculator is coming to an end this month. Gary Heitz has done a nice job adding functions and explaining how they are programed. Next month we start a new project which will be decided at the March meeting. Thanx Gary, we have all been learning.

Still no word on the Diamond Operating System we ordered. If anyone can help us to procure one, please give me a call. I'm very excited about the new O.S. modifications, and would like to see a couple of them demoed before I make a choice of which one is for me.

Dues are due!! If you missed the March meeting, be sure to send them to George Nosky so you don't miss a single issue of AIM. If you don't join or rejoin, you could miss the best year yet. Dues are still just \$22.00 a year, including the AIM subscription.

Lastly, I would like to thank Gerry Borysiak for his wholehearted effort toward the Atari fair. I'm sorry it did not work out with all he has done to get it set up. Thanx Gerry!

See you at the April Meeting! Good computing, Tim



Michigan Atari Computer Enthusiast members receive, as part of their dues, Atari Interface Magazine, a monthly magazine keeping them informed of what is new in MACE and the whole Atari community. Members are also entitled to purchase disks from the 8bit and ST public domain software libraries. 8bit disks are \$3 each and ST disks are \$4 each, and if you buy three disks from either library and you can choose a 4th disk absolutely FREE! Non-members may purchase disks at a slightly higher rate. Mail order is also available. For a catalog of current disks in our libraries, send \$2 for either an ST or 8bit catalog to the MACE address below. Please indicate ST or 8bit when sending in your order.

The most important benefit you receive is the help and support from (and interaction with) other Atari owners. If you're having a problem, need advice about a software package or whatever, your fellow MACE members can and will help. That's what a user group is all about -- helping each other get the most from our computing.

MACE meets on the third Tuesday of each month from 7:30 to 10 pm in Room 115 of the Southfield Civic Center at 10-1/2 Mile and Evergreen Roads.

MACE can be contacted at PO Box 2785, Southfield, MI. 48037 or by calling Bill Rayl at (313) 973-8825 or Bob Retelle at (313) 483-7358.

Any MACE member who contributes an article which appears in Atari Interface Magazine is entitled to a free disk from the library of his/her choice.

#### MACE BBS Numbers:

MACE WeST	(313)582-0657	(3/12/2400)
MACE East	(313)978-1685	(3/1200)
The College Board	(313)478-9647	(3/12/2400)
Down River Outpost	(313)675-4660	(3/12/2400)
Molin's Den	(313)420-0407	(3/1200)

### Atari Expo Update

If you weren't at the February General Meeting of MACE, you missed out on getting the latest news about the Michigan Atari Computer Expo. I thought I'd fill you in on some of the more important details!

As you know, the Expo is scheduled for May 6&7, at the Detroit Metro Airport Hilton, located in Romulus. The show times are 10 a.m. to 6 p.m. on Saturday, and 10 a.m. to 5 p.m. on Sunday. Ticket prices to non-User Group members are \$5, and children under 12 get in free of charge.



The Exhibitor Kits were mailed on February 1, and already (as of Feb. 20th) we've got half of our booths committed for by large and small developers. Some names you may recognize are ICD, Migraph, Alpha Systems, Innovative Concepts, SofTrek, USA Media, Gribnif Software, BEST Electronics, ST Informer, Index Legalis, Mars Merchandising, Astra Systems, Total Control Systems and others! Some of the local dealers coming to the Expo include Rite Way, Computer Concepts, Joppa Computers and Basic Bits 'N' Bytes, just to name a few. The list of names increases weekly as "maybes" become "yeses!"

User Groups will be able to obtain booths free of charge near the ticket sales, and User Groups members will be able to obtain discounts from any vendors participating in the User Group Discount program. This discount would be above and beyond any special show prices! If you'd like to help at the Expo by "guarding" a door, taking tickets or other odd jobs, you would be eligible for the Gold Card Program. For more information on this, please call me at (313) 973-8825.

A few people have expressed the feeling that the show ST World is working on in June was in the works before MACE thought of having a show, and we're being greedy or stubborn to butt heads with this other show. Nothing could be farther from the truth.

MACE has been working with Atari Corp (Sig Hartmann and Cindy Claveran to be specific) since the end of September when Sig Hartmann called and spoke to Bill. I had the unhappy task of informing Atari of this "competing" show as they didn't know ST World had anything planned for this area.

It wasn't until January that ST World had a date and hotel set for their show, by which time we had already begun organizing the Exhibitor Kits to send to developers. By the end of October, we had set the date for the Show with both the Hilton and Atari, plus contacting developers to let them know what was in the works. Discussion of the show was held at the November General Meeting, the minutes of which appear in the December issue of MAM.

We've got the word out to developers, User Groups and attendees alike with our announcements in publications like Analog, ST Log, ST X-press, ST Informer and the Griffin Gazette (not to mention AIM!). A press release has also been posted on GENie, CompuServe, Delphi, MACE WeST and East and the Treasure CheST, and the same press release appeared in a recent ST Report.

On another note...if you need to renew, please do so, and my thanks go to those members who have just committed to MACE for another year (or more in some cases)! If you're not sure when you need to renew, please check the label on this magazine or catch me at our General Meetings.

Pattie Snyder-Rayl

PS. The February Meeting Minutes weren't available for publication because the General Meeting was after the deadline. They will appear in the April issue.



### TRI-CITY ATARI GROUP

The Tri-City Atari Users Group meets the second Saturday of every month at 2 p.m. at the Rudy Zauel Memorial Library on the corner of Shattuck and Center in Saginaw. Upcoming meetings are scheduled as follows: March 18 and April 15, 1989.

LeRoy Valley	President	686-6796
Marty Schmidt	Treasurer/Secretary	792-6029
Al Jennings	ST Disk Librarian	790-1980
Ted Beauchamp	8bit Librarian	686-8872

Club dues are \$20.00 per year. For this fee you get the Atari Interface Magazine, support for both the 8bits and ST's, and full access to the clubs public domain library. We currently have 150 8bit disks and 50 ST disks. 8bit disks cost \$1 each, and ST disks cost \$2 each. Check your mailing label. If you need to renew or you haven't even joined yet, then do it now!



### Washtenaw Atari Users Group — February 14th, 1989

President Jon Brode's variation on "Hear yea, hear yea" brought the crowd (about 15 people) to order at 7:45 p.m. The meeting was held at State Street Computer. Jon noted there was no pressing club business and the feature topic as "Utilities."

ST Librarian Russ Crum described the contents of the special disk he put together for this meeting, including the latest version of ARC Shell (now up to v1.97c), Mouse-ka-mania, DC Formatter v3.0, and DCCopy v3.07. Russ also announced a new update to the catalog disk, and reminded members they could get the update for free by returning a previous copy of the catalog disk.

8Bit Librarian Mike Millage announced his disk special included a repeat of last month's SuperARC, DiskCom3, some speed-up utilities for the XF551, and that he would be demonstrating these along with DOS XE, the long-awaited Double-Side, Double Density DOS package from Atari.

Mike Olin demonstrated the use of ARC Shell, in combination with DCCopy. Mike also showed Mouse Double (a speedup utility for ST mouse operations), SuperBoot (a utility that allows the user to define which programs run in the AUTO folder, which Accessory files will load, and select from multiple Desk-Top Info files) and the AUTOFOLD.PRG from the Michtron Utilities Plus disk (which allows the user to reorder the files that appear in an AUTO folder.)

Upcoming meetings: March 14 - Databases

April 11 - Printers

May 9 - Education

June 13 - Elections/Flea Market

Meetings begin at 7:30 p.m. The next meeting will be at State Street Computer in Ann Arbor.



## Ask Tim

by Tim Sharpe

*Q Every now and then my 1050 Disk Drive stops dead in its tracks, sits idle for a few seconds, and then starts running again. I was told by some friends that you never give good advice and that you just make up your answers as you go along. But I'll trust you on this one. What's making my drive behave like this?*

A I was almost tempted to just throw your insulting letter away, but I've decided to answer your question to prove once and for all that I do NOT "make up answers as I go along."

Your problem is a simple one. It has to do with the ATARI Operating System (OS). The OS contains a "time-out" feature which causes devices to quit working—yeah, that's the ticket. The time-out feature allows devices hooked up to your ATARI to temporarily stop working so they can enjoy a coffee break—yeah, that's the ticket. This ability was programmed into the OS to allow extra-terrestrials to write coded messages onto the diskette during this coffee break—yeah, that's the ticket. They have to do this because everyone knows that our government won't tell us anything—yeah, that's the ticket...

*Q I've recently heard a rumor that the large state of Texas is going to be split into to smaller, equal states. One will be called "Old Texas" and the other will be called "New Texas." Is there any truth to this rumor?*

A Hey, read my lips: No New Texas!

*Q Hello. I'm sure that the first time you read this letter you will assume that it is a practical joke. I assure you that it isn't. I am writing to you from the future; specifically, the year 2200 A.D. As you can see, the U.S. Postal Service has gotten much better at delivering mail (but the cost of the postage stamp was outrageous!) I discovered your existence from a copy of a magazine that was found in a time capsule. It's being displayed in an ATARI museum, and although I can't remember the name of the magazine (I think it sounded like a brand of toothpaste), I did manage to get your address. I've got a degree in Computer History, and I just wanted to let you know that ATARI went bankrupt in the year 2001 A.D. It seems ATARI had two major problems that they could not overcome: lack of advertising and not coming through on products that it promised to release. In 1999 they advertised heavily in the small farming communities of Cornville, Iowa and Wheatville, Kansas; but, alas, national sales did not rise. Was it common practice in your time for computer companies to advertise only in small communities?*

A Don't act so surprised, ATARI users—we all KNEW this would happen some day, didn't we?

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March 1989

# Events Calendar

SUN	MON	TUE	WED	THU	FRI	SAT
			<b>GRASS</b> GENie ST CO 10PM 1	<b>GLASS</b> GENie 8bit CIS ST 10PM 2	3	4
CIS 8bit CO 10PM 5	6	Delphi CO 10PM 7	<b>GAG</b> GENie ST CO 10PM 8	CIS ST & GENie 8bit CO 10PM 9	10	<b>CHAOS</b> ST SIG <b>GKAUG</b> 11
<b>CACE</b> CIS 8bit CO 10PM 12	13	<b>WAUG</b> Delphi CO 10PM 14	GENie ST CO 10PM 15	CIS ST & GENie 8bit CO 10PM 16	17	<b>CHAOS</b> 8bit SIG <b>TAG</b> 18
CIS 8bit CO 10PM 19	20	<b>MACE</b> Delphi CO 10PM 21	GENie ST CO 10PM 22	CIS ST & GENie 8bit CO 10PM 23	24	25
CIS 8bit CO 10PM 26	27	Delphi CO 10PM 28	GENie ST CO 10PM 29	CIS ST & GENie8bit CO 10PM 30	31	

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(301) 544-6943	
Alpha Systems	18
(216) 374-7469	
BEST Electronics	20
(408) 243-6950	
Tech-Specialities	21
(713) 691-4527	
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ment Tools	
(415) 452-1129	
SofTrek	25
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Michigan Atari Com-	26
puter Expo	
(313) 973-8825	
Center for Computer	29
Resources	
(313) 547-5540	

## Comparison Chart of the Three Major Services

All Rates are listed per hour

	CompuServe	GENie	Delphi
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1200 Baud	\$12.50	\$35.00	\$35.00
2400 Baud	\$12.50	\$35.00	\$35.00
<b>Nighttime</b>			
300 Baud	\$6.00	\$5.00	\$4.80*
1200 Baud	\$12.50	\$5.00	\$4.80*
2400 Baud	\$12.50	\$15.00	\$4.80*

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\*Delphi Rates are \$4.80 per hour when signed up with the Advantage Plan, otherwise the rate is \$7.20.

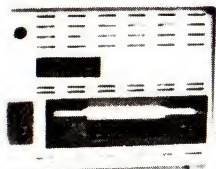


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